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## **CANOTIA**

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A Preliminary Checklist of Arizona Macrofungi	
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Canotia publishes botanical and mycological papers related to Arizona. These may include contributions to the Vascular Plants of Arizona project, checklists, local floras, new records for Arizona and ecological studies. All manuscripts are peer-reviewed by specialists. Acceptance for publication will be at the discretion of the editor. At least 30 printed copies of each issue are distributed to libraries in the United States, Europe, and Latin America. Anyone may download copies free of charge at http://lifesciences.asu.edu/herbarium/canotia.html.

Canotia is named for Canotia holacantha Torr. (Celastraceae), a spiny shrub or small tree nearly endemic to Arizona.

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## A PRELIMINARY CHECKLIST OF ARIZONA MACROFUNGI

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#### **ABSTRACT**

A checklist of 1290 species of nonlichenized ascomycetaceous, basidiomycetaceous, and zygomycetaceous macrofungi is presented for the state of Arizona. The checklist was compiled from records of Arizona fungi in scientific publications or herbarium databases. Additional records were obtained from a physical search of herbarium specimens in the University of Arizona's Robert L. Gilbertson Mycological Herbarium and of the author's personal herbarium. This publication represents the first comprehensive checklist of macrofungi for Arizona. In all probability, the checklist is far from complete as new species await discovery and some of the species listed are in need of taxonomic revision. The data presented here serve as a baseline for future studies related to fungal biodiversity in Arizona and can contribute to state or national inventories of biota.

## INTRODUCTION

Arizona is a state noted for the diversity of its biotic communities (Brown 1994). Boreal forests found at high altitudes, the 'Sky Islands' prevalent in the southern parts of the state, and ponderosa pine (*Pinus ponderosa* P.& C. Lawson) forests that are widespread in Arizona, all provide rich habitats that sustain numerous species of macrofungi. Even xeric biomes, such as desertscrub and semidesert-grasslands, support a unique mycota, which include rare species such as *Itajahya galericulata* A. Møller (Long & Stouffer 1943b, Fig. 2c). Although checklists for some groups of fungi present in the state have been published previously (e.g., Gilbertson & Budington 1970, Gilbertson et al. 1974, Gilbertson & Bigelow 1998, Fogel & States 2002), this checklist represents the first comprehensive listing of all macrofungi in the kingdom Eumycota (Fungi) that are known from Arizona. In addition to providing a taxonomic framework to aid those workers whose investigations involve macrofungi found in Arizona, checklists such as this contribute to state and national inventories of biota and can aid future studies related to fungal and biological diversity.

This checklist includes 1290 nonlichenized species of macrofungi in the phyla Ascomycota, Basidiomycota, and Zygomycota that are present in Arizona. Species of lichenized fungi that are found in the region have been covered extensively in other publications (e.g., Nash et al. 2002, Nash et al. 2004, Sweat et al. 2004). The term macrofungi (or macromycetes) can be defined as species of fungi that produce fruiting bodies visible without the aid of a microscope (Kirk et al. 2001), and can be further defined to include only those fungi that produce fruiting bodies greater than one centimeter in height and/or width (Redhead 1997). The term refers specifically to the sporocarp of the fungal organism rather than the mycelium, which lives underground or within decomposing substrata such as rotting logs. Macrofungi

include well-known groups that have been described by popular terms such as 'cup fungi', 'bracket fungi', 'mushrooms', 'puffballs', and 'truffles'. These terms reflect the morphological diversity (Figs. 1 & 2) that is encountered within the fungi.

Overall, fungal organisms play important roles in the Earth's ecosystems. Saprobic macrofungi perform a critical function in carbon cycling by decomposing woody debris from the forest floor, thus making this source of carbon available to other organisms (Gilbertson & Bigelow 1998). Because their hyphae act as an interface for nutrient absorption between soil and vegetation, ectomycorrhizal fungi, which produce macroscopic fruiting bodies, are considered to be invaluable components of forest ecosystems (Read & Perez-Moreno 2003). Furthermore, it has been noted that hypogeous species of macrofungi can be an important food source for fauna such as the tassel-eared squirrel, *Sciurus aberti* Woodhouse (States 1983).

Although there is a perceived paucity of literature covering macrofungi from the southwestern United States (Nishida et al. 1992), the tremendous efforts of field mycologists such as R.L. Gilbertson and J.S. States have left numerous records of Arizona macrofungi in publications and as herbarium specimens. Also of note are W.H. Long's specimens in the U.S. National Fungus Collection and his pioneering studies in the gasteromycetes (e.g., Long 1941, Long 1944, Long & Stouffer 1948a-b), which comprise the majority of records of macrofungi known from Arizona prior to the 1950's. More recently, there has been an ongoing diversity study of the mycoflora found in the 'Sky Islands' of southern Arizona's Chiricahua Mountains (Nishida et al. 1992). Considering that approximately 5% of the Earth's fungal species have been described (Hawksworth 2001), it is probable that additional species of macrofungi await discovery in Arizona. Indeed, several new species from the state have been recognized and now await formal description (Bessette et al. 2000, Tulloss 2005).

## **METHODS**

The species of macrofungi cited in this paper have been culled from a survey of the scientific literature. Additional state records were obtained by searching herbarium databases that are available online through the New York Botanical Garden (NY, http://sciweb.nybg.org/science2/hcol/fungi/index.asp), Oregon State University Herbarium (OSC, http://ocid.nacse.org/research/herbarium/myco/), University of Michigan Fungus Collection (MICH, http://herbarium.lsa.umich.edu/), University of Tennessee Herbarium (TENN, http://tenn.bio.utk.edu/fungus/), and the U.S. National Fungus Collections (BPI, http://www.ars.usda.gov/main/). It should also be noted that many of the species cited from the literature are also deposited as specimens in herbaria (e.g., Gilbertson et al. 1974, Gilbertson & Bigelow 1998, Gilbertson & Ryvarden 1986-1987, Long & Stouffer 1948a-b, Nishida et al. 1992, States 1984, Thiers 1976). Data from the literature and herbarium databases were supplemented by records acquired from the author's personal herbarium (hb. STB) and from the University of Arizona's Robert L. Gilbertson Mycological Herbarium (ARIZ) after a physical search of specimens housed there.

All of the records obtained were entered into a database that contained 3253 individual records, each citing a source as well as the binomial as it was originally published. If synonyms existed, the current name cited online in the CABI Index Fungorum (http://www.indexfungorum.org) was used. Species names that appeared in multiple records were reduced to one entry for the checklist. The entries are followed by annotations (in brackets), which indicate the source record for each species included in the checklist (see Annotation Key below). If no previous published report of the species' occurrence in Arizona existed, then the annotation 'NR' indicates a new record. The system of classification used follows that given in the 9<sup>th</sup> edition of Ainsworth and Bisby's Dictionary of Fungi (Kirk et al. 2001). This system has integrated much of the current molecular phylogenetic data into its classification scheme. Abbreviations for fungal authors follow the standards used in Authors of Plant Names (Brummit & Powell 1992). All records in the original database are accessible online through the Arizona State University Natural History Collections (http://nhc.asu.edu/nhc/azmacrofungi/) as part of an online version of the checklist, which will be updated as additional records become available in the future.

## **DISCUSSION AND CONCLUSIONS**

Approximately 35% of the species that appear in this checklist are reported from Arizona for the first time. For this study, it was not possible to examine all specimens documented in the checklist for the purpose of verifying species level identifications. Besides being a monumental task, such an endeavor would have been beyond the expertise of the author. Therefore, it is quite possible that the checklist contains some inaccuracies. For example, it has been suggested that many of the Amanita species appearing in the checklist (e.g., A. bisporigera, A. caesarea, A. citrina, A. crocea, A. fulva, A. gemmata, A. pantherina, A. vaginata, A. verna, and A. virosa) are likely to be misapplied European species names (Tulloss, pers. comm.). In cases such as these, further study by qualified mycologists is required before accurate determinations can be made. However, it is very likely that the majority of the species contained in the list, particularly those cited from the literature, are accurate as many have been identified by mycologists who are specialists in their field (e.g., Bates 2004, Desjardin et al. 1992, Fatto 2000, Gilbertson & Ryvarden 1986-1987, Hesler & Smith 1979, Long & Stouffer 1948a-b, Nishida et al. 1992, States & Fogel 1999, Thiers 1976, Tulloss 2005, Wright 1987). The checklist should be considered provisional as a great deal of exploration, investigation, and taxonomic revision is required before a complete checklist of Arizona macrofungi is obtainable. This publication represents progress toward that goal.

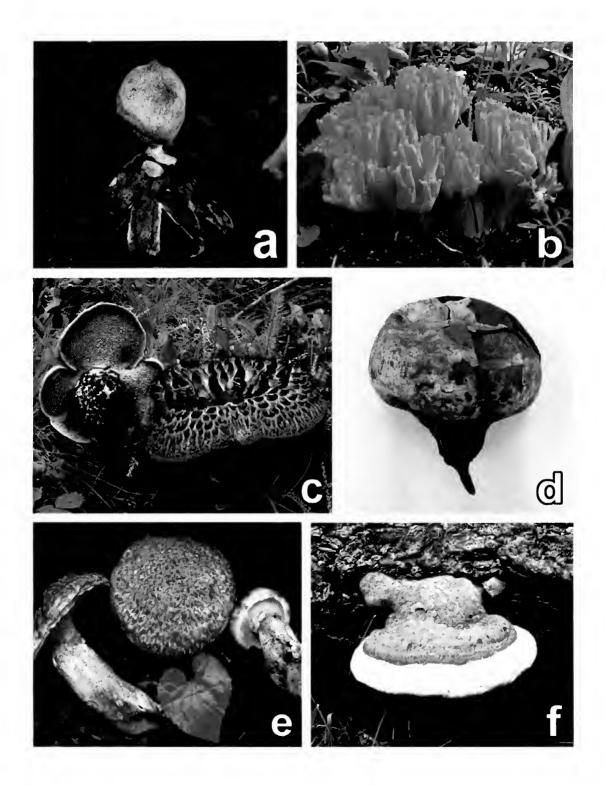
#### **ACKNOWLEDGMENTS**

I thank the New York Botanical Garden, Oregon State University Herbarium, University of Michigan Fungus Collection, University of Tennessee Herbarium, and U.S. National Fungus Collection for making their specimen databases available via the World Wide Web. Dr. R.L. Gilbertson and Dr. A.E. Arnold of the Robert L. Gilbertson Mycological Herbarium offered advice, access to specimens, and generously assisted me throughout this project. Hugo Beraldi, Tonya R.

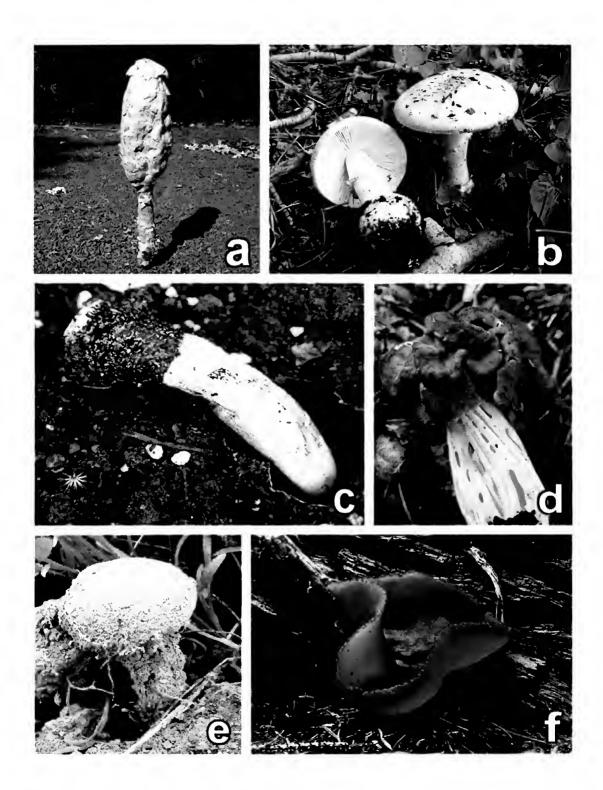
Boschmann, Darvin DeShazer, and Michael Wood contributed by reading over the manuscript, offering suggestions and/or taxonomic guidance. Robin T. Schroeder patiently assited me in making the original database available online through the web-based version of the checklist (http://nhc.asu.edu/nhc/azmacrofungi/). Dr. R. Fogel offered assistance in procuring records from the University of Michigan Fungus Collection database. Dr. R.E. Tulloss kindly reviewed the *Amanita* species and offered taxonomic advice. Dr. E.C. Vellinga amiably offered suggestions concerning the taxonomy and nomenclature of various taxa, including species in the genus *Lepiota*. The late, R.M. Fatto contributed *Russula* records and words of guidance through personal communications. Finally, I thank Dr. C.R. Leathers for introducing me to the Arizona mycota and Drs. D.E. Desjardin, T.H. Nash III, and R.W. Roberson for the role that they played in expanding my knowledge of the lichenized and nonlichenized fungi.

Annotation Key. Annotations [in brackets] follow each taxon, indicating those records that are new for Arizona (NR) and citing the source for each record with a number (see Literature Cited):

NR - New Record for Arizona; 1 - Arora 1979; 2 - Bates 2004; 3 - Burdsall & Gilbertson 1982; 4 - Cavaliere 1964; 5 - Demoulin 1972; 6 - Demoulin 1993; 7 - Desjardin et al. 1992; 8 - Fatto 2000; 9 - Fatto 2002; 10 - Fogel 1994; 11 - Fogel & Pacioni 1989; 12 - Fogel & States 2001; 13 -Fogel & States 2002; 14 - Gilbertson 1974; 15 - Gilbertson & Bigelow 1998; 16 - Gilbertson & Blackwell 1982; 17 - Gilbertson & Budington 1970; 18 - Gilbertson & Burdsall 1975; 19 - Gilbertson et al. 1976; 20 - Gilbertson & Canfield 1973; 21 - Gilbertson et al. 1979; 22 - Gilbertson & Lindsey 1975; 23 - Gilbertson & Lindsey 1978; 24 - Gilbertson & Lindsey 1989; 25 - Gilbertson & Lowe 1970; 26 - Gilbertson et al. 1974; 27 - Gilbertson & Ryvarden 1986; 28 - Gilbertson & Ryvarden 1987; 29 - Hesler & Smith 1979; 30 - Lindsey & Gilbertson 1975; 31 - Lindsey & Gilbertson 1977a; 32 - Lindsey & Gilbertson 1977b; 33 - Long 1941; 34 - Long 1944; 35 - Long 1946a; 36 - Long 1946b; 37 - Long & Miller 1945; 38 - Long & Stouffer 1943a; 39 - Long & Stouffer 1943b; 40 -Long & Stouffer 1946; 41 - Long & Stouffer 1948a; 42 - Long & Stouffer 1948b; 43 - McKnight 1985; 44 - Morse 1933; 45 - Nakasone & Gilbertson 1978; 46 - Nishida et al. 1992; 47 - Ranzoni 1968; 48 - Rizzo et al. 2003; 49 - Shear 1902; 50 - Smith 1974; 51 - States 1983; 52 - States 1984; 53 - States 1991; 54 - States & Fogel 1999; 55 - States & Gaud 1997; 56 - Thiers 1976; 57 - Tulloss 2005; 58 - Tulloss & Lindgren 1994; 59 - Wright 1987; 60 - ARIZ; 61 - BPI; 62 - MICH; 63 - NY; 64 - OSC; 65 - hb. STB; 66 - TENN; 67 - White Mountains checklist (pers. comm. C.R. Leathers); 68 – R.M. Fatto (pers. comm.)



**Macrofungi** Figure 1. Varying sporocarp morphology in nonlichenized macrofungi:
(a) Earthstar – *Geastrum minimum*; (b) Coral Fungus – *Ramaria* sp.; (c) Tooth Fungus – *Sarcodon imbricatus*; (d) Puffball – *Calvatia fragilis*; (e) Bolete – *Suillus lakei*; (f) Bracket Fungus – *Fomitopsis pinicola*.



Macrofungi Figure 2. Varying sporocarp morphology in nonlichenized macrofungi:
(a) Secotioid Fungus – *Podaxis pistillaris*; (b) Mushroom – *Amanita* sp.; (c) Stinkhorn – *Itajahya galericulata*; (d) Elvin Saddle – *Helvella lacunosa*; (e) Stalked Puffball – *Tulostoma* sp.; (f) Cup Fungus – *Peziza* sp.

## PRELIMINARY CHECKLIST OF ARIZONA MACROFUNGI

#### ASCOMYCOTA

### Elaphomycetales

Elaphomyces decipiens Vittad. [11,13] Elaphomyces granulatus var. asperulus (Vittad.) Hawker [11] Elaphomyces granulatus var. granulatus Fr. [13,51,55] Elaphomyces reticulatus Vittad. [11,13] Elaphomyces verrucosus C.W. Dodge [13,51]

### Helotiales

Ascocoryne sarcoides (Jacq.: Fr.) J.W. Groves & D.E. Wilson [NR,60] Bisporella citrina (Batsch: Fr.) Korf & S.E. Carp. [NR,60,62] Chlorociboria aeruginosa (Oeder: Fr.) Seaver ex C.S. Ramamurthi, Korf & L.R. Batra [NR,61,62] Cudonia circinans (Pers.) Fr. [NR,60] Cudonia grisea Mains [NR,67] Cudonia lutea (Peck) Sacc. [NR,60] Mitrula gracilis P. Karst. [NR,60] Pachycudonia monticola (Mains) S. Imai [NR,62] Pachycudonia spathulata (S. Imai) S. Imai [NR,67] Spathularia flavida Pers.: Fr. [NR,60,61,62] Stromatinia gladioli (Drayton) Whetzel [NR,61]

## Hypocreales

Cordyceps militaris (L.: Fr.) Link [NR,60] Cordyceps sobolifera (Hill ex Watson) Berk. & Broome [NR,60] Hypocrea citrina var. americana Canham [NR,61] Hypocrea citrina var. citrina (Pers.) Fr. [NR,60] Hypomyces aurantius (Pers.) Fuckel [NR,60] Hypomyces hyalinus (Schwein.) Tul. & C. Tul. [NR,60] Hypomyces lactifluorum (Schwein.) Tul. [NR,60,62] Hypomyces luteovirens (Fr.) Tul. & C. Tul. [NR,62,67] Hypomyces papyraceus (Ellis & Holw.) Seaver [NR,60]

Hypomyces polyporinus Peck [NR,60] Hypomyces rosellus (Alb. & Schwein.: Fr.) Tul. & C. Tul. [NR,60,61] Hypomyces viridis (Alb. & Schwein.) P. Karst. [NR,62] Podostroma alutaceum (Pers.) G.F. Atk. [NR,60]

#### **Pezizales**

[13]

Aleuria aurantia (Pers.) Fuckel [NR,61] Aleuria rubra L.R. Batra [NR,64] Anthracobia melaloma (Alb. & Schwein.) Arnould [NR,62] Balsamia magnata Harkn. [11,51,55] Balsamia nigrescens Harkn. [13] Barssia oregonensis Gilkey [NR,64] Caloscypha fulgens (Pers.: Fr.) Boud. [NR,60,65] Carbomyces emergens Gilkey [13,60] Discina ancilis (Pers.) Sacc. [NR,62] Flavoscypha cantharella (Fr.) Harmaja [NR,62] Geopora arenicola (Lév.) Kers [NR,62] Geopora arenosa (Fuckel) S. Ahmad [NR,60] Geopora cooperi f. cooperi Harkn. [11,13,51,55,62] Geopora cooperi f. gilkeyae Burds. [13,51,62] Geopyxis carbonaria (Alb. & Schwein.: Fr.) Sacc. [NR,62] Geopyxis vulcanalis Peck [NR,60] Gyromitra esculenta (Pers.) Fr. [NR,62] Gyromitra gigas (Krombh.) Cooke [NR,60] Gyromitra infula (Schaeff.: Fr.) Quél. [NR,60,61,62] Helvella acetabulum (L.) Quél. [NR,60,61,62] Helvella crispa (Scop.) Fr. [NR,60,61,62] Helvella elastica var. elastica Bull.: Fr. [NR,60,61] Helvella elastica var. macropoda Font Quer [NR,61] Helvella harrisonii N.S. Weber & Dissing nom. prov. [NR,60] Helvella lacunosa Afzel.: Fr. [NR,60,62] Helvella latispora Boud. [NR,62] Helvella leucomelaena (Pers.) Nannf. [NR,62] Helvella macropus (Pers.) P. Karst. [NR,61] Helvella queletii Bres. [NR,62] Hydnobolites cerebriformis Tul. & C. Tul.

Mitrophora semilibera (DC.: Fr.) Lév. **INR.621** Morchella elata Fr. [NR,62] Morchella esculenta (L.: Fr.) Pers. [NR,60,61,62] Morchella rufobrunnea Guzmán & F. Tapia [NR,62] Otidea alutacea (Pers.) Massee [NR,62] Otidea leporina (Batsch) Fuckel [NR,60] Otidea onotica (Pers.: Fr.) Fuckel INR.601 Patella albida (Schaeff.) Seaver [NR,60] Peziza arvernensis Boud. [NR.60] Peziza concentrica Seaver [NR,60] Peziza domiciliana Cooke [NR,60,62] Peziza ostracoderma Korf [47] Peziza repanda Pers. [NR,60,62] Pithya lacunosa (Ellis & Everh.) Seaver [NR,60] Plectania nannfeldtii Korf [NR,60] Pyronema omphalodes (Bull.) Fuckel [NR,60] Sarcosphaera coronaria (Jacq.) J. Schröt. [NR,60,62] Scutellinia scutellata (L.: Fr.) Lambotte [NR,60,62] Scutellinia umbrorum (Fr.) Lambotte [NR,61] Sowerbyella rhenana (Fuckel) J. Moravec [NR,67] Sphaerosporella hinnulea (Berk. & Broome) Rifai [NR,60] Tarzetta catinus (Holmsk.) Korf & J.K. Rogers [NR,60,62] Tarzetta cupularis (L.: Fr.) Svrček [NR.62] Trichophaea gregaria (Rehm) Boud. [NR,60] *Tuber dryophilum* Tul. [11,13,51,62] Tuber irradians Gilkey [NR,62] Tuber levissimum Gilkey [11,13,51,55,62] Tuber monticola Harkn. [NR,61] Verpa conica (O.F. Müll.) Sw. [NR,65]

## **Xylariales**

Biscogniauxia mediterranea (De Not.) Kuntze [NR,61] Daldinia concentrica (Bolton: Fr.) Ces. & De Not. [NR,60,61,62] Daldinia eschscholzii (Ehrenb.) Rehm Daldinia grandis Child [NR,61]

Daldinia vernicosa (Schwein.) Ces. & De Not. [NR,60] Hypoxylon albolanatum (Ellis & Everh.) P.M.D. Martin [NR,60] Hypoxylon rubiginosum (Pers.) Fr. [NR,60] Kretzschmaria deusta (Hoffm.: Fr.) P.M.D. Martin [NR,60] Poronia punctata (L.) Fr. [NR,60,61] *Xylaria hypoxylon* (L.: Fr.) Grev. [45,60]

## **BASIDIOMYCOTA**

#### Agaricales

[4,62]

Abstoma townei (Lloyd) Zeller [NR,63] Agaricus albolutescens Zeller [NR,62] Agaricus aridicola Geml, Geiser & Royse [NR,61] Agaricus arvensis Schaeff.: Fr. [NR.62] Agaricus augustus Fr. [NR,62] Agaricus bitorquis (Quél.) Sacc. [NR,60,62] Agaricus campestris L.: Fr. [4,60,62] Agaricus silvaticus Schaeff. [NR,60] Agaricus silvicola (Vittad.) Peck [NR,60,62] Agaricus subfloccosus (J.E. Lange) Hlaváček [NR,62] Agaricus texensis (Berk. & M.A. Curtis) Geml, Geiser & Royse [NR,62] Agaricus xanthodermus Genev. [NR,62] Agrocybe pediades (Fr.) Fayod [NR,60] Amanita bisporigera G.F. Atk. [NR,57] Amanita caesarea (Scop.: Fr.) Pers. [4,60,62] Amanita citrina (Schaeff.: Fr.) Pers. [NR,60] Amanita crocea (Quél.) Singer [NR,65] Amanita eremites Tulloss nom. prov. [57] Amanita flavorubens (Berk. & Mont.) Sacc. [1,57,62] Amanita fulva (Schaeff.) Fr. [NR,67] Amanita gemmata (Fr.) Gillet [NR,62] Amanita macerisolum Tulloss nom. prov. [57] Amanita muscaria subsp. flavivolvata Singer [4,57,60,62,63] Amanita nivalis Grev. [NR.62] Amanita novinupta Tulloss & J. Lindgr. [57,58]Amanita ocreata Peck [1] Amanita pantherina (DC.: Fr.) Krombh. [NR,60,62] Amanita parcivolvata (Peck) E. J. Gilbert [NR,61]Amanita prairiicola Peck [57] Amanita protecta Tulloss & G. Wright

Amanita rubescens Pers.: Fr. [4,46,60,62,63]

Vellinga [NR,60]

Amanita smithiana Bas [57] Clavaria purpurea Fr. [NR,60,62] Amanita vaginata (Bull.: Fr.) Lam. Clavaria vermicularis Fr. [NR.62] Clitocybe brunneocephala H.E. Bigelow [NR,60,62] Amanita verna (Bull.: Fr.) Lam. [NR,62] [NR,60,63] Clitocybe caespitosa Peck [NR.60] Amanita virosa (Fr.) Bertill. [NR,60] Clitocybe candicans (Pers.: Fr.) P. Kumm. Amanita xylinivolva Tulloss, Ovrebo & [NR,67] Halling [57] Clitocybe candida Bres. [NR,63] Araneosa columellata Long [33,61] Clitocybe cartilaginea (Bull.: Fr.) Bres. Armillaria mellea (Vahl: Fr.) P. Kumm. [NR,60] [4,14,15,26,60,62] Clitocybe gibba (Pers.: Fr.) P. Kumm. Armillaria ostovae (Romagn.) Herink INR.621 Clitocybe maxima (Gaertn. & G. Mey.: Fr.) [15,60]Asterophora parasitica (Bull.: Fr.) P. Kumm. [NR,67] Clitocybe mutabilis H.E. Bigelow [NR,62] Singer [NR,67] Auriculariopsis albomellea Clitocybe odora (Bull.: Fr.) P. Kumm. (Bondartsev) Kotl. [15] [NR,62] Battarrea digueti Pat. & Har. Clitocybe paropsis (Fr.) Sacc. [4] Clitocybe sinopica (Fr.) P. Kumm. [NR,67] [NR,60,61] Battarrea phalloides (Dicks.) Pers. Clitocybula familia (Peck) Singer [NR,62] [NR,60,61,62] Clitocybula lacerata (Lasch) Singer [NR,60] Bovista aestivalis (Bonord.) Demoulin Conocybe albipes Hauskn. [NR,65] [NR,2,62,65] Conocybe tenera (Schaeff.: Fr.) Fayod Bovista dermoxantha (Vittad.) De Toni [NR,60,62] Coprinellus domesticus (Bolton) Vilgalys, [NR,2,63,65] Hopple & Jacq. Johnson [NR,60] Bovista plumbea Pers.: Pers. Coprinellus micaceus (Bull.: Fr.) Vilgalys, [NR,2,60,62,63,65] Calocybe constricta (Fr.) Kühner Hopple & Jacq. Johnson [15,60] [NR,67] Coprinellus radians (Desm.) Vilgalys, Calvatia bicolor (Lév.) Kreisel Hopple & Jacq. Johnson [NR,62] Coprinopsis atramentaria (Bull.) Redhead, [NR,2,60,61,62,63] Calvatia booniana A.H. Sm. Vilgalys & Moncalvo [4,15,60,62] [NR,2,60,62] Coprinopsis papagoensis (Lindsey & Gilb.) Calvatia craniiformis (Schwein.) Fr. Redhead, Vilgalys & Moncalvo [NR,2,60,62] [15,30,45,60] Calvatia cyathiformis (Bosc) Morgan Coprinus calyptratus Peck [37] [NR,2,60,62,63] Coprinus comatus (O.F. Müll.) Gray Calvatia fragilis (Vittad.) Morgan [NR,62] Cortinarius cinnabarinus Fr. [NR,60,62] [NR,2,60,62,63] Calvatia leiospora Morgan [NR,2,60] Cortinarius cinnamomeus (L.: Fr.) Fr. Calvatia pachyderma (Peck) Morgan [NR,60] [2,6,60,62,63,65] Cortinarius gentilis (Fr.) Fr. [NR,62] Calvatia rugosa (Berk. & M.A. Curtis) Cortinarius glaucopus (Schaeff.: Fr.) Fr. D.A. Reid [NR,2,60,63] **INR.621** Catathelasma imperiale (Fr.) Singer Cortinarius magnivelatus Dearn. ex Fogel [NR,67] Catathelasma ventricosum (Peck) Cortinarius multiformis (Fr.) Fr. [NR,62] Singer [NR,67] Cortinarius phoeniceus var. occidentalis Chlamydopus meyenianus (Klotzsch) A.H. Sm. [NR,62] Lloyd [40,61] Cortinarius ponderosus A.H. Sm. [NR,62] Chlorophyllum agaricoides (Czern.) Cortinarius purpureus (Bull.: Fr.) Bidaud, Vellinga [NR,61] Moënne-Locc. & Reumaux [NR,62] Chlorophyllum molybdites (G. Mey.: Cortinarius saxamontanus Fogel [10,62] Fr.) Massee [NR,60,62] Cortinarius trivialis J.E. Lange [NR,65] Chlorophyllum rachodes (Vittad.) Cortinarius violaceus (L.: Fr.) Gray [4]

Crepidotus alabamensis Murrill [15,60]

Crepidotus cesatii var. cesatii (Rabenh.) Sacc. [26] Crepidotus cesatii var. subsphaerosporus (J.E. Lange) Senn-Irlet [15] Crepidotus coloradensis Hesler & A.H. Sm. [15,60] Crepidotus epibryus (Fr.) Quél. [NR,60] Crepidotus fulvotomentosus Peck [4] Crepidotus kauffmanii Hesler & A.H. Sm. [15,60] Crepidotus mollis var. cystidiosus Hesler & A.H. Sm. [15,60] Crepidotus mollis var. mollis (Schaeff.: Fr.) Staude [15,26,60] Crepidotus occidentalis Hesler & A.H. Sm. [15,60] Crepidotus pallidobrunneus Hesler & A.H. Sm. [15,60] Crepidotus subverrucisporus Pilát [NR,60] Crepidotus versutus (Peck) Sacc. [15,60] Cristinia helvetica (Pers.) Parmasto [15,21,60,61] Cristinia sonorae Nakasone & Gilb. [15.21.45.60.61] Crucibulum laeve (Huds.: Pers.) Kambly [NR,62] Cyathus olla (Batsch) Pers. [NR.61.62] Cyathus stercoreus (Schwein.) De Toni [NR,61,62] Cyathus striatus (Huds.: Pers.) Willd. [NR,67] Cyphellopsis anomala (Pers.: Fr.) Donk [17,15,26,61] Cyptotrama asprata (Berk.) Redhead & Ginns [14,15,26,60,61] Cystoderma amianthinum (Scop.: Fr.) Fayod [NR,62] Cystoderma cinnabarinum (Alb. & Schwein.: Fr.) Fayod [4,60,62] Cystoderma fallax A.H. Sm. & Singer [NR,62] Cystoderma granulosum (Batsch: Fr.) Fayod [NR,67] Disciseda candida (Schwein.) Lloyd [NR,2,63,65] Disciseda cervina (Berk.) Hollós [NR,2,62,65] Disciseda hyalothrix (Cooke & Massee) Hollós [NR.2,60] Disciseda verrucosa G. Cunn. [NR,2,60,62,65] Endoptychum arizonicum (Shear & Griffiths) Singer & A.H. Sm. [49,61,62]

Donk [NR,60] Entoloma byssisedum (Pers.: Fr.) Donk [15,60] Entoloma griseum (Peck) Hesler [NR,62] Entoloma rhodopolium (Fr.) P. Kumm. **INR.621** Entoloma sinuatum (Bull.: Fr.) P. Kumm. INR.60,621 Flammulina fennae Bas [NR,66] Flammulina velutipes (Curtis: Fr.) Singer [15.26.60.62] Floccularia albolanaripes (G.F. Atk.) Watling & S.P. Abraham [NR,62] Floccularia pitkinensis (Mitchel & A.H. Sm.) Bon [NR,62] Floccularia straminea var. americana (Mitchel & A.H. Sm.) Bon [NR.62] Floccularia straminea var. straminea (Krombh.) Pouzar [4,62] Galerina marginata (Batsch: Fr.) Kühner [15,26,60] Gastrocybe lateritia Watling [NR,62] Gymnopilus bellulus (Peck) Murrill [NR,60] Gymnopilus junonius (Fr.) P.D. Orton [15,60,62] Gymnopilus sapineus (Fr.) Maire [4,14,15,26,60,62] Gymnopus dryophilus Murrill [4,60,62] Gymnopus impudicus (Fr.) Antonín, Halling & Noordel. [4] Gyrophragmium decipiens (Peck) Lloyd [NR,62] Hebeloma crustuliniforme (Bull.: Fr.) Quél. [NR,62]Hebeloma insigne A.H. Sm., V.S. Evenson & Mitchel [NR,67] Hebeloma sinapizans (Fr.) Sacc. [NR,62] Henningsomyces candidus (Pers.: Fr.) Kuntze [15,17,19,26,61] Hohenbuehelia angustata (Berk.) Singer [15,60]Hohenbuehelia atrocoerulea (Fr.: Fr.) Singer [NR,62] Hohenbuehelia grisea (Peck) Singer [15,60] Hohenbuehelia mastrucata (Fr.: Fr.) Singer [15,60] Hohenbuehelia nigra (Schwein.) Singer [15,60] Hohenbuehelia petalodes (Bull.: Fr.) Schulzer [15,26,60,61] Holocotylon brandegeeanum Lloyd [NR,2,60,61,65] Hygrocybe conica (Scop.: Fr.) P. Kumm. [NR,62]

Entoloma abortivum (Berk. & M.A. Curtis)

Kumm. [NR,60,62]

Hygrocybe persistens (Britzelm.) Singer Inocybe rimosa (Bull.: Fr.) P. Kumm. INR.621 [47,60] Hygrocybe punicea (Fr.) P. Kumm. Inocybe sororia Kauffman [NR,62] [NR,60] Inocybe subtomentosa Peck [4] Hygrocybe turunda (Fr.: Fr.) P. Karst. Inocybe trechispora (Berk.) P. Karst. [NR,60] [NR,60] Hygrocybe virginea (Wulfen: Fr.) P.D. Laccaria amethysteo-occidentalis G.M. Orton & Watling [4] Muell. [NR,62] Hygrophoropsis aurantiaca (Wulfen: Laccaria amethystina Cooke [NR,62] Laccaria laccata (Scop.: Fr.) Fr. [NR.60,62] Fr.) Maire [15] Hygrophorus agathosmus (Fr.) Fr. Lachnella alboviolascens (Alb. & Schwein.: Fr.) Fr. [15,22,26,45] [NR.60] Hygrophorus aurantiacus Henn. Lepiota boudieri Bres. [NR,60] [NR,62] Lepiota clypeolaria (Bull.: Fr.) Quél. Hygrophorus caeruleus O.K. Mill. [NR,60,62] Lepiota cristata (Bolton: Fr.) P. Kumm. [NR,67] Hygrophorus calophyllus P. Karst. [NR,62] [NR,62] Lepiota magnispora Murrill [NR,62] Hygrophorus chrysodon (Batsch: Fr.) Lepista densifolia (J. Favre) Singer & Clémençon [NR,67] Fr. [NR,60,62,65] Lepista irina (Fr.) H.E. Bigelow [NR,60] Hygrophorus eburneus (Bull.: Fr.) Fr. Lepista nuda (Bull.: Fr.) Cooke [NR,62] **INR.621** Hygrophorus erubescens (Fr.) Fr. Leucoagaricus leucothites (Vittad.) M.M. [NR,60,62] Moser ex Bon [NR,60,62] Hygrophorus gliocyclus Fr. [NR,62] Leucocoprinus birnbaumii (Corda) Singer Hygrophorus hypothejus (Fr.) Fr. [4] [NR,60,62] Hygrophorus niveicolor (Murrill) A.H. Leucocoprinus cepistipes (Sowerby: Fr.) Sm. & Hesler [NR,62] Pat. [NR,60] Hygrophorus psittacinus (Schaeff.) Fr. Leucopaxillus albissimus var. albissimus [NR,62] (Peck) Singer [4,62] Hygrophorus pudorinus (Fr.) Fr. Leucopaxillus albissimus var. barbarus [NR,60,62] (Maire) Singer & A.H. Sm. [NR,60] Hygrophorus purpurascens (Alb. & Leucopaxillus albissimus var. piceinus Schwein.: Fr.) Fr. [NR,62] (Peck) Singer & A.H. Sm. [NR,62] Hygrophorus russula (Schaeff.: Fr.) Leucopaxillus gentianeus (Quél.) Kotl. Kauffman [NR,60] [NR,60,61,62] Hygrophorus sordidus Peck [NR,62] Leucopaxillus paradoxus (Costantin & L.M. Hygrophorus speciosus Peck Dufour) Boursier [NR,62] [NR,62,65] Limacella furnacea (Letell.) E.J. Gilbert Hygrophorus subalpinus A.H. Sm. [NR,60] [NR,67] Limacella glischra (Morgan) Earle [NR,62] Hygrophorus subfusoideus Largent Limacella illinita (Fr.: Fr.) Maire [NR,62] Lycoperdon lividum Pers. [NR,2,61] [NR,62] Hypholoma capnoides (Fr.: Fr.) P. Lycoperdon marginatum Vittad. Kumm. [15,21,60,62] [2,5,60,61,62,63,65] Hypholoma fasciculare (Huds.: Fr.) Lycoperdon molle Pers. [NR,2,60,61,62,63] Quél. [15,26,60,62] Lycoperdon perlatum Pers.: Pers. Hypsizygus tessulatus (Bull.: Fr.) Singer [2,5,60,61,62,63,65] Lycoperdon pulcherrimum Berk. & M.A. [15,60,62] Inocybe decipientoides Peck [NR,60] Curtis [2,5,61,62,65] Lycoperdon pyriforme Schaeff.: Pers. Inocybe geophylla var. geophylla (Sowerby) P. Kumm. [NR,62] [2,5,61,62,63,65] Inocybe geophylla var. lilacina Gillet Lycoperdon rimulatum Peck **INR,621** [NR,2,60,61,62,65] Inocybe lanuginosa (Bull.: Fr.) P. Lycoperdon umbrinum Pers. [NR,2,65]

Lyophyllum decastes (Fr.: Fr.) Singer [4,62]

Marasmius inaquosi Desjardin [7] Pholiota populnea (Pers.: Fr.) Kuyper & Marasmius plicatulus Peck [NR,62] Tiall.-Beuk. [NR.62] Marasmius rotula (Scop.: Fr.) Fr. Pholiota spumosa (Fr.: Fr.) Singer [15,26] [26,60] Pholiota squarrosa (Weigel: Fr.) P. Kumm. Marasmius siccus (Schwein.) Fr. [4,15,26,60,62] [19,21] Pholiota squarrosoadiposa J.E. Lange Megacollybia platyphylla (Pers.: Fr.) [26,60] Kotl. & Pouzar [14,15,26,60,62] Pholiota squarrosoides (Peck) Sacc. Melanoleuca cognata (Fr.) Konrad & [15,26,60,62] Phyllotopsis nidulans (Pers.: Fr.) Singer Maubl. [NR,60] Melanoleuca grammopodia (Bull.: Fr.) [4,15,26,60,62] Pleurotus cystidiosus O.K. Mill. [NR,61] Murrill [NR,67] Montagnea arenaria (DC.) Zeller Pleurotus dryinus (Pers.: Fr.) P. Kumm. [NR,61,62] [26,60] Mycena acicula (Schaeff.) P. Kumm. Pleurotus ostreatus (Jacq.: Fr.) P. Kumm. [NR,62] [4,15,21,60,61,62] Mycena alcalina (Fr.) P. Kumm. Pleurotus pulmonarius (Fr.: Fr.) Quél. [NR,62] [15,60] Pleurotus sapidus (Schulzer) Sacc. [26,60] Mycena galericulata (Scop.: Fr.) Gray **INR.601** Pleurotus subareolatus Peck [21,60] Mycena maculata P. Karst. [NR,60] Pluteus atromarginatus (Konrad) Kühner Mycena murina Murrill [NR,62] [NR,62] Mycena pura (Pers.: Fr.) P. Kumm. Pluteus cervinus P. Kumm.: Fr. [NR,60,62] [14,15,26,60,62] Mycenastrum corium (Guers.) Desv. Pluteus granularis Peck [NR,60] [NR,2,60,61,62] Pluteus longistriatus Peck [15,26,60] Nidularia griseolazulina Lindsey & Pluteus pellitus (Pers.: Fr.) P. Kumm. [NR,65] Gilb. [30,61] Omphalotus olearius (DC.: Fr.) Singer Pluteus romellii (Britzelm.) Lapl. [NR,62] Podaxis argentinus Speg. [43] [15,21,60,62] Panaeolus antillarum (Fr.) Dennis Podaxis longii McKnight [43] Podaxis pistillaris (L.: Pers.) Fr. [44,62] [NR,60] Panaeolus papilionaceus (Bull.: Fr.) Psathyrella ammophila (Durieu & Lév.) Quél. [4] P.D. Orton [NR,62] Panaeolus semiovatus (Sowerby: Fr.) S. Psathyrella candolleana (Fr.: Fr.) Maire Lundell & Nannf. [NR,60] [15,60,62] Psathyrella circellatipes Benoist [NR,62] Phellorinia inquinans Berk. [35] Pholiota adiposa (Batsch: Fr.) P. Psathyrella sarcocephala (Fr.: Fr.) Singer Kumm. [15] [NR,60] Pholiota albocrenulata (Peck) Sacc. Psathyrella spadicea (Schaeff.: Fr.) Singer [15,60,62] [15,21,60] Pholiota alnicola (Fr.: Fr.) Singer Pseudoclitocybe cyathiformis (Bull.: Fr.) [4,15,26,60] Singer [NR,60] Pholiota aurivella (Batsch: Fr.) Fr. Psilocybe coprophila (Bull.: Fr.) P. Kumm. [15,26,60,62] [NR,60] Pholiota bakerensis A.H. Sm. & Hesler Resupinatus applicatus (Batsch: Fr.) Gray [14,15,26,60] [14,15,26,45,60] Rhodocollybia maculata (Alb. & Schwein.: Pholiota decorata (Murrill) A.H. Sm. & Fr.) Singer [NR,65] Hesler [14,15,26,60] Pholiota flavida (Schaeff.: Fr.) Singer Schizophyllum commune Fr.: Fr. [4,15,26,45,60,62] [15,60] Schizostoma laceratum (Ehrenb.) Lév. Pholiota highlandensis (Peck) A.H. Sm. & Hesler [15,60] [38,61] Sedecula pulvinata Zeller [13,52] Pholiota limonella (Peck) Sacc. [15,60]

Pholiota lubrica (Pers.: Fr.) Singer [4]

Simocybe haustellaris (Fr.) Watling [26,60]

Stigmatolemma fimbriatum (Pers.)
Pouzar [NR,61]
Stigmatolemma poriiforme (Pers.: Fr.)
W.B. Cooke [15,17,26,28,61]
Strobilurus conigenoides (Ellis) Singer
[NR,60]
Stropharia aeruginosa (Curtis: Fr.)
Quél. [NR,67]
Stropharia coronilla (Bull.: Fr.) Fr.
[NR,62]
Stropharia kauffmanii A.H. Sm.
[NR,62]
Stropharia riparia A.H. Sm. [NR,62]
Stropharia semiglobata (Batsch: Fr.)
Quél. [4,60]
Stropharia squamosa (Pers.: Fr.) Quél.
[NR,62] Tricholoma caligatum (Viv.) Ricken
•
[NR,62]
Tricholoma flavovirens (Pers.: Fr.) S. Lundell [NR,60,61,62,63]
Tricholoma focale (Fr.) Ricken
[NR,61,62]
Tricholoma imbricatum (Fr.: Fr.) P.
Kumm. [NR,60]
Tricholoma leucophyllum Ovrebo &
Tylutki [NR,67]
Tricholoma ponderosum (Peck) Singer
[NR,60]
Tricholoma portentosum (Fr.) Quél.
[NR,67]
Tricholoma saponaceum (Fr.) P.
Kumm. [NR,60,61,62,63]
Tricholoma terreum (Schaeff.: Fr.)
Quél. [NR,62]
Tricholomopsis bella A.H. Sm.
[15,26,60]
Tricholomopsis decora (Fr.) Singer
[4,62]
Tricholomopsis rutilans (Schaeff.: Fr.)
Singer [15,26,60,62]
Tubaria pellucida (Bull.: Fr.) Fr.
[NR,62]
Tulostoma albicans V.S. White [59,61]
Tulostoma americanum Lloyd [59]
Tulostoma brumale Berk. [NR,61]
Tulostoma cretaceum Long [NR,62]
Tulostoma excentricum Long [NR,61]
Tulostoma fibrillosum V.S. White
[NR,61]
Tulostoma fimbriatum var. campestre
(Morgan) G. Moreno [59,61,62]
Tulostoma fimbriatum var. egranulosum
(Lloyd) J.E. Wright [59,61]
Tulostoma floridanum Lloyd [NR,61]
Tulostoma fusings Har & Pat [50 61]

Tulostoma herteri Lowag & Swoboda INR.611 Tulostoma involucratum Long [34,59,61] Tulostoma leiosporum Fr. [NR,61] Tulostoma macrocephalum Long [NR,62] Tulostoma meristostoma Long [59,62] Tulostoma mohavei Llovd [59] Tulostoma obscurum J.E. Wright [59] *Tulostoma opacum* Long [34,59,61,62] Tulostoma poculatum V.S. White [36,61,62] Tulostoma pulchellum var. subfuscum (V.S. White) J.E. Wright, G. Moreno & Altés [61] Tulostoma purpusii Henn. [59,61] Tulostoma semisulcatum Peck [59] Tulostoma simulans Lloyd [59] Tulostoma striatum G. Cunn. [59,61] Tulostoma utahense J.E. Wright [59.61] Tulostoma verrucosum Morgan [NR,62] Tulostoma volvulatum f. elatum Pat. [59] Tulostoma volvulatum f. volvulatum I.G. Borshch. [NR,62] Tulostoma vulgare Long & S. Ahmad [59,61] Tulostoma xerophilum Long [36,59,61,62] Vascellum intermedium A.H. Sm. [NR,2,65] Vascellum lloydianum A.H. Sm. [NR,2,65] *Vascellum texense* A.H. Sm. [2,50,60,61] Volvaria earlei (Murrill) Sacc. & Trotter [NR,60] Volvariella bombycina (Schaeff.: Fr.) Singer [15,26,60] Volvariella pusilla (Pers.: Fr.) Singer [NR,60,62] Xeromphalina campanella (Batsch: Fr.) Maire [4,14,15,26,60,62] Xeromphalina cauticinalis (With.: Fr.) Kühner & Maire [15,60] Xerula radicata (Relhan: Fr.) Dörfelt [NR,60] Xerulina chrysopepla (Berk. & M.A. Curtis) Singer [NR,62]

#### Auriculariales

Auricularia auricula-judae (Fr.) Quél. [15,26,61,62]

#### **Boletales**

Alpova diplophloeus (Zeller & C.W. Dodge)
Trappe & A.H. Sm. [NR,64]
Astraeus hygrometricus (Pers.: Fr.) Morgan
[2,42,60,61,62,64,65]
Boletellus russellii (Frost) E.-J. Gilbert
[NR,60,62]
Boletus barrowsii Thiers & A.H. Sm.
[56,60,62]

Boletus chromapes Frost [4,60] Boletus chrysenteron Bull. [NR,60,62] Boletus edulis Bull.: Fr. [4,60,62,63] Boletus erythropus Krombh. [NR,60,62] Boletus griseus Frost [NR,63] Boletus haematinus Halling [NR,63] Boletus luridus Schaeff.: Fr. [NR.60] Boletus rubellus Krombh. [NR,62] Boletus satanas Lenz [NR,60] Boletus truncatus (Singer, Snell & E.A. Dick) Pouzar [NR.62] Brauniellula albipes (Zeller) A.H. Sm. & Singer [11,13,55] Brauniellula crassitunicata Pacioni & Fogel [NR,62] Brauniellula nancyae A.H. Sm. & Singer [52] Chroogomphus pseudovinicolor O.K. Mill. [NR,62] Chroogomphus rutilus (Schaeff.: Fr.) O.K. Mill. [NR,62] Chroogomphus vinicolor (Peck) O.K. Mill. [NR,62] Coniophora arida (Fr.) P. Karst. [14,15,17,26,61] Coniophora eremophila Lindsey & Gilb. [15,19,21,22,30,61] Coniophora fusispora (Cooke & Ellis) Cooke [15] Coniophora olivacea (Fr.) P. Karst. [14,15,17,26,61] Coniophora puteana (Schumach.: Fr.) P. Karst. [14,15,17,26,61] Coniophora submembranacea (Berk. & Broome) Cooke [26] Gomphidius glutinosus (Schaeff.: Fr.) Fr. [NR,60,62] Gomphidius roseus (Fr.) Fr. [NR,62] Gomphidius subroseus Kauffman [NR,62] Gyroporus castaneus (Bull.: Fr.) Quél. [NR,62] Hygrophoropsis aurantiaca (Wulfen: Fr.) Maire [4,60,62] Hygrophoropsis morganii (Peck) H.E. Bigelow [NR,62] Hymenogaster brunnescens A.H. Sm. [52,62] Hymenogaster parksii Zeller & C.W. Dodge [NR,62] Hymenogaster subalpinus A.H. Sm. [13,52,62] Hymenogaster sublilacinus A.H. Sm.

[55,62]

Jaapia ochroleuca (Bres.) Nannf. & J. Erikss. [15] Leccinum arctostaphyli V.L. Wells & Kempton [NR,62] Leccinum aurantiacum (Bull.) Gray [NR,60,62] Leccinum insigne A.H. Sm., Thiers & Watling [NR,62] Leccinum montanum Thiers [NR,62] Leccinum scabrum (Bull.) Gray [4] Leccinum subalpinum Thiers [56] Leucogaster rubescens Zeller & C.W. Dodge [13,52] Leucogyrophana arizonica Ginns [15] Leucogyrophana mollusca (Fr.: Fr.) Pouzar [14,15,17,26,61] Leucogyrophana olivascens (Berk. & M.A. Curtis) Ginns & Weresub [14,15,17,26] Leucogyrophana pinastri (Fr.: Fr.) Ginns & Weresub [14,15,26,61] Leucogyrophana pseudomollusca (Parmasto) Parmasto [14,17,26,61] Leucophleps spinispora Fogel [13,62] Marthanella nidulosa States & Fogel [54,62] Melanogaster ambiguus (Vittad.) Tul. & C. Tul. [13,52] Melanogaster euryspermus (Zeller & C.W. Dodge) Zeller [11,13,52,55] Melanogaster tuberiformis Corda [11,13,52,55] Paxillus involutus (Batsch: Fr.) Fr. [NR,62] Phylloporus rhodoxanthus (Schwein.) Bres. [NR,60,62] Pisolithus tinctorius (Pers.) Coker & Couch [NR,61,62] Pseudomerulius aureus (Fr.: Fr.) Jülich [15,61] Rhizopogon colossus A.H. Sm. [NR,64] Rhizopogon evadens A.H. Sm. [13,52,55] Rhizopogon nitens A.H. Sm. [NR,62] Rhizopogon ochraceorubens A.H. Sm. [13,52,55] Rhizopogon pinyonensis K.A. Harrison & A.H. Sm. [13,52] Rhizopogon subcaerulescens A.H. Sm. [13,52,55] Rhizopogon subcroceus A.H. Sm. [13,52] Rhizopogon vinicolor A.H. Sm. [NR,64] Scleroderma areolatum Ehrenb. [NR,62] Scleroderma cepa Pers. [NR,62] Scleroderma citrinum Pers. [NR,62] Scleroderma flavidum Ellis & Everh. [NR,61] Scleroderma hypogaeum Zeller [NR,62]

Sclerogaster xerophilus Fogel [11,13,52,55,62] Serpula himantioides (Fr.) P. Karst. [14,15,17,26,61] Serpula lacrymans (Wulfen: Fr.) J. Schröt. [NR,61,62] Strobilomyces strobilaceus (Scop.: Fr.) Berk, [NR,60,62,63] Suillus americanus (Peck) Snell [NR,60,62] Suillus brevipes (Peck) Kuntze [NR.60] Suillus caerulescens A.H. Sm. & Thiers **INR.621** *Suillus fuscotomentosus* Thiers & Λ.H. Sm. [NR,62] Suillus granulatus (L.: Fr.) Snell [4,60,62] Suillus kaibabensis Thiers [56] Suillus lakei (Murrill) A.H. Sm. & Thiers [NR,60,62] Suillus occidentalis Thiers [56,62] Suillus sibiricus (Singer) Singer [NR,62] Suillus wasatchicus Thiers [46,56,62] Tapinella atrotomentosa (Batsch: Fr.) Sutara [NR,60,62] Tapinella panuoides (Batsch: Fr.) E.-J. Gilbert [14,15,60,62] Truncocolumella citrina Zeller [11,13,62]

#### Cantharellales

Botryobasidium ansosum (H. S. Jacks. & D.P. Rogers) Parmasto [14,15,17,26,61] Botryobasidium botryosum (Bres.) J. Erikss. [15] Botryobasidium candicans J. Erikss. [15,26] Botryobasidium laeve (J. Erikss.) Parmasto [17,61] Botryobasidium medium J. Erikss. [14,15,26] Botryobasidium pruinatum (Bres.) J. Erikss. [14,15,26] Botryobasidium subcoronatum (Höhn. & Litsch.) Donk [14,15,17,26,61] Botryohypochnus isabellinus (Fr.) J. Erikss. [14,15,17,26,61] Botryohypochnus verrucisporus Burds. & Gilb. [3] Cantharellus cibarius Fr.: Fr. [NR,60,62] Clavulina coralloides (L.: Fr.) J. Schröt. [NR,62] Hydnum repandum L.: Fr. [NR,60,62]

## **Dacrymycetales**

Calocera cornea (Batsch: Fr.) Fr. [15,26] Calocera viscosa (Pers.) Fr. [NR,67] Dacrymyces capitatus Schwein. [15,26] Dacrymyces chrysospermus Berk. & M.A. Curtis [15] Dacrymyces dictyosporus G.W. Martin [14,15,26] Dacrymyces minor Peck [15,19,26] Dacrymyces palmatus (Schwein.) Burt. [14,26,61,62] Dacrymyces punctiformis Neuhoff. [14,26] Dacrymyces stillatus Nees: Fr. [15,26,61] Dacrymyces tortus Fr. [15] Dacryopinax spathularia (Schwein.: Fr.) G.W. Martin [15,21,26] Ditiola radicata (Alb. & Schwein.: Fr.) Fr. [15,26,61] Guepiniopsis alpina (Tracy & Earle) Brasf. [14,15,26,61,62]

#### Exobasidiales

Exobasidium vaccinii (Fuckel) Woronin [NR,61]

## Hymenochaetales

Coltricia cinnamomea (Jacq.) Murrill [17,27,62,66] Coltricia perennis (L.: Fr.) Murrill [27,61,62] Hymenochaete cinnamomea (Pers.) Bres. [15,17,19,23,26,61] Hymenochaete corrugata (Fr.: Fr.) Lév. [15,17,26] Hymenochaete leonina Berk. & M.A. Curtis [15,26] Hymenochaete rubiginosa (Dicks.: Fr.) Lév. [15,19,26,61] Hymenochaete spreta Peck [15,26] Hymenochaete tenuis Peck [15,26,61] Hyphodontia abieticola (Bourdot & Galzin) J. Erikss. [14,15,17,26,61] Hyphodontia altaica Parmasto [15,21] Hyphodontia alutacea (Fr.: Fr.) J. Erikss. [14,15,17,26,61] Hyphodontia alutaria (Burt) J. Erikss. [14,17,26] Hyphodontia apacheriensis (Gilb. & Canf.) Hjortstam & Ryvarden [15,19,20,22,26,28,30,61] Hyphodontia arguta (Fr.: Fr.) J. Erikss. [15,17,22,26,61] *Hyphodontia aspera* (Fr.) J. Erikss. [17,26,61]

Hyphodontia barba-jovis (Bull.) J. Inonotus patouillardii (Rick) Imazeki Erikss. [14,17,26] [15,17,26,27] Hyphodontia breviseta (P. Karst.) J. Inonotus rheades (Pers.) Bondartsev & Erikss. [14,15,17,26,61] Singer [NR,61] Hyphodontia crustosa (Pers.: Fr.) J. Inonotus rickii (Pat.) D.A. Reid [27] Erikss. [15,17,21,26] Inonotus texanus Murrill [15,19,26,27,61] Hyphodontia detritica (Bourdot & Inonotus triqueter (Alb. & Schwein.) Galzin) J. Erikss. [32] Teixeira [15] Hyphodontia floccosa (Bourdot & Onnia circinata (Fr.) P. Karst. [14,26,27] Galzin) J. Erikss. [14,15,17,26,61] Onnia tomentosa (Fr.: Fr.) P. Karst. Hyphodontia hastata (Litsch.) J. Erikss. [14,15,26,27,61] [14,15,17,26] Oxyporus corticola (Fr.) Ryvarden Hyphodontia latitans (Bourdot & [14,15,17,26,28,61] Oxyporus latemarginatus (Durieu & Mont.) Galzin) Ginns & M.N.L. Lefebvre [15,26,27,61] Donk [15,17,19,26,28,61] Hyphodontia nespori (Bres.) J. Erikss. Oxyporus populinus (Schumach.: Fr.) Donk & Hjortstam [15] [15] Hyphodontia pallidula (Bres.) J. Erikss. Oxyporus similis (Bres.) Ryvarden [15,28] [14,15,17,26,61] Phellinus arctostaphyli (Long) Niemelä Hyphodontia papillosa (Fr.: Fr.) J. [15,26,28,61] Erikss. [14,15,26,61] Phellinus badius (Berk.) G. Cunn. Hyphodontia pilaecystidiata (S. [15,19,26,28,61] Lundell) J. Erikss. [15] Phellinus chrysoloma (Fr.) Donk [15,28] Hyphodontia pruni (Lasch) Svrček Phellinus contiguus (Pers.: Fr.) Pat. [15,28] [15,19,26,61] Phellinus coronadensis Rizzo, Gieser & Hyphodontia quercina (Pers.: Fr.) J. Burds. [48] Erikss. [15,19,26] Phellinus everhartii (Ellis & Galloway) Pilát Hyphodontia radula (Pers.: Fr.) Langer [15,26,28,61] & Vesterh. [26,61] Phellinus ferrugineofuscus (P. Karst.) Hyphodontia rimosissima (Peck) Gilb. Bourdot & Galzin [15,26,28] [15,21,26] Phellinus ferruginosus (Schrad.: Fr.) Pat. Hyphodontia sambuci (Pers.: Fr.) J. [15,17,19,26,28,61] Erikss. [15,17,19,26,45,61] Phellinus gilvus (Schwein.: Fr.) Pat. Hyphodontia spathulata (Schrad.: Fr.) [15,19,26,28,61] Phellinus hartigii (Allesch. & Schnabl.) Pat. Parmasto [15,17,22,26,61] Hyphodontia stipata (Fr.) Gilb. [26] [28] Hyphodontia subalutacea (P. Karst.) J. Phellinus igniarius (L.: Fr.) Quél. [28,61] Erikss. [14,15,17,26,61] Phellinus nigrolimitatus (Romell) Bourdot Inonotus andersonii (Ellis & Everh.) & Galzin [15,17,26,28,61] Černý [15,26,27,61] Phellinus pini (Brot.: Fr.) Bondartsev & Inonotus arizonicus Gilb. [15,26,27,61] Singer [14,15,26,28,61] Inonotus cuticularis (Bull.: Fr.) P. Phellinus punctatus (Fr.) Pilát [28] Karst. [15,26,27,61] Phellinus rimosus (Berk.) Pilát [NR,61] Inonotus dryadeus (Pers.: Fr.) Murrill Phellinus robiniae (Murrill) A. Ames [15,21,27] [15,26,28,61] Inonotus dryophilus (Berk.) Murrill Phellinus robustus (P. Karst.) Bourdot & Galzin [15,22,26,28,30,46,61] [15,26,27,61] Inonotus farlowii (Lloyd) Gilb. [27,61] Phellinus sonorae Gilb. [15,28] Phellinus torulosus (Pers.: Fr.) Bourdot & Inonotus glomeratus (Peck) Murrill Galzin [14,15,26,28,61] [NR,61] Phellinus tremulae (Bondartsev) Bondartsev Inonotus hispidus (Bull.: Fr.) P. Karst. [15,26,27,62] & Borissov [15,26,28] Inonotus jamaicensis Murrill [15,28] Phellinus viticola (Schwein.: Fr.) Donk Inonotus munzii (Lloyd) Gilb. [15,26,28,61] Phellinus weirianus (Bres.) Gilb. [15,26,27,61]

[15,26,28,61]

Phylloporia fruticum (Berk. & M.A. Curtis) Ryvarden [NR,61] Phylloporia ribis (Schumach.: Fr.) Ryvarden [28] Schizopora flavipora (Berk. & M.A. Curtis ex Cooke) Ryvarden [15] Schizopora paradoxa (Schrad.: Fr.) Donk [17,61]

#### **Phallales**

Clavariadelphus lignicola R.H. Petersen [NR,60,66] Clavariadelphus ligula (Schaeff.: Fr.) Donk [NR,61,62] Clavariadelphus occidentalis Methven [NR,60] Clavariadelphus sachalinensis (S. Imai) Corner [15,21,60] Clavariadelphus truncatus (Quél.) Donk [NR,60,62] Dictyophora duplicata (Bosc) E. Fisch. [NR,62] Gautieria crispa E.L. Stewart & Trappe [13,52] Gautieria gautierioides (Lloyd) Zeller & C.W. Dodge [13,52] Geastrum arenarium Lloyd [2,42,61] Geastrum campestre Morgan [2,42,60,61,62] Geastrum corollinum (Batsch) Hollós [NR,2,65] Geastrum coronatum Pers. [2,42,60,62,65] Geastrum elegans Vittad. [2,42,61,62] Geastrum fimbriatum Fr. [2,42,60,61,62] Geastrum floriforme Vittad. [2,42,60,61,65] Geastrum fornicatum (Huds.) Hook. [2,42,60,61] Geastrum hieronymi Henn. [2,42,62] Geastrum kotlabae V.J. Staněk [2,42,61,65] Geastrum lageniforme Vittad. [NR,2,60] Geastrum minimum Schwein. [2,42,60,61,62,65] Geastrum quadrifidum DC.: Pers. [NR,2,60,61] Geastrum rufescens Pers. [NR,2,62,65] Geastrum saccatum Fr. [NR,2,62,65] Geastrum schmidelii Vittad. [2,42,61,65]

Geastrum smardae V.J. Staněk

Geastrum smithii Lloyd [2,42,61]

[2,42,61,65]

Geastrum striatum DC. [2,42,61,65] Geastrum triplex Jungh. [2,42,60,61] Geastrum xerophilum Long [NR,2,61] Gomphus bonarii (Morse) Singer [NR,61] Gomphus floccosus (Schwein.) Singer [NR,60,62] Gomphus kauffmanii (A.H. Sm.) Corner [NR,62] Hysterangium coriaceum R. Hesse [11,13,55,62] Hysterangium separabile Zeller [11,52,64] Itajahya galericulata A. Møller [39,41,60,61,65] Kavinia alboviridis (Morgan) Gilb. & Budington [15,17,26,61] Kavinia himantia (Schwein.: Fr.) J. Erikss. [14,15,17,26,61] Mutinus caninus (Huds.: Pers.) Fr. [NR,62] Myriostoma coliforme (Dicks.) Corda [2,42,61]Phallus hadriani Vent.: Pers. [41,61,62] Ramaria apiculata (Fr.) Donk [4] Ramaria aurea (Schaeff.: Fr.) Quél. [NR,60] Ramaria botrytis (Pers.: Fr.) Ricken [NR,62] Ramaria flava (Schaeff.:Fr.) Quél. [NR,66] Ramaria flavobrunnescens (G.F. Atk.) Corner [4,62] Ramaria obtusissima (Peck) Corner [NR,60] Ramaria pinicola (Burt) Corner [NR,66] Ramaria stricta (Pers.: Fr.) Quél. [NR,60,62] Ramaria suecica (Fr.) Donk [NR,62] Saprogaster pinyonensis Fogel & States [12] Sphaerobolus stellatus Tode: Pers. [NR,62] Trappea darkeri (Zeller) Castellano [11,55,62] *Trappea pinyonensis* States [13,53,62]

## **Polyporales**

Abortiporus biennis (Bull.) Singer [26,27] Albatrellus confluens (Alb. & Schwein.) Kotl. & Pouzar [17,27] Albatrellus dispansus (Lloyd) Canf. & Gilb. Albatrellus ellisii (Berk.) Pouzar [27,61] Albatrellus ovinus (Schaeff.: Fr.) Kotl. & Pouzar [27,62] Albatrellus subrubescens (Murrill) Pouzar Aleurodiscus amorphus Rabenh. [15,26,61] Aleurodiscus bertii Lloyd [26] Aleurodiscus canadensis Skolko [14,17,26] Aleurodiscus cerussatus (Bres.) Höhn. & Litsch. [17,22,26,61] Aleurodiscus croceus Pat. [15,26] Aleurodiscus diffissus (Sacc.) Burt [17,26]

Aleurodiscus disciformis (DC.: Fr.) Pat. [15.26] Aleurodiscus fennicus Laurila [26] Aleurodiscus lividocaeruleus (P. Karst.) P.A. Lemke [26,61] Aleurodiscus oakesii (Berk. & M.A. Curtis) Pat. [15,17,26,61] Aleurodiscus spiniger D.P. Rogers & P.A. Lemke [15,17,26,61] Aleurodiscus weirii Burt [26] Amphinema byssoides (Pers.: Fr.) J. Erikss. [15,17,26,61] Amylocorticium pedunculatum Hjortstam [NR,61] Amylocorticium subincarnatum (Peck) Pouzar [15,24,26] Amylocorticium subsulphureum (P. Karst.) Pouzar [14,15,17,24,26] Amylocystis lapponicus (Romell) Bondartsev & Singer [15,26,27] Anomoporia bombycina (Fr.) Pouzar [14,15,26,27,61] Antrodia albida (Fr.) Donk [15,22,26,27,61] Antrodia albobrunnea (Romell) Ryvarden [14,17,26,27,61] Antrodia carbonica (Overh.) Ryvarden & Gilb. [14,15,17,26,27] Antrodia crassa (P. Karst) Ryvarden [14,15,17,26,61] Antrodia ferox (Long & D.V. Baxter) Gilb. & Ryvarden [15,26,27] Antrodia gossypina (Speg.) Ryvarden [27] Antrodia heteromorpha (Fr.: Fr.) Donk [15,19,22,26,27,61] Antrodia juniperina (Murrill) Niemelä & Ryvarden [15,22,26,27,61] Antrodia malicola (Berk. & M.A. Curtis) Donk [15,17,26,27] Antrodia odora (Peck ex Sacc.) Gilb. & Ryvarden [15,17,26,27,61] Antrodia oleracea (R.W. Davidson & Lombard) Ryvarden [26] Antrodia serialis (Fr.) Donk [14,15,26,27,61] Antrodia sinuosa (Fr.: Fr.) P. Karst. [15,22,26,27,61] Antrodia sitchensis (D.V. Baxter) Gilb. & Ryvarden [14,15,17,26,27,61] Antrodia sorida Ryvarden & Gilb. [15] Antrodia xantha (Fr.: Fr.) Ryvarden [15,26,27,61] Antrodiella romellii (Donk) Niemelä [14,15,26,27]

Antrodiella semisupina (Berk. & M.A. Curtis) Ryvarden [15] Athelia acrospora Jülich [21] Athelia arachnoidea (Berk.) Jülich [15,26] Athelia bombacina (Link) Pers. [15,21] Athelia coprophila (Wakef.) Jülich [15,19,21] Athelia decipiens (Höhn. & Litsch.) J. Erikss. [14,15,17,26,30,45,61] Athelia epiphylla Pers.: Fr. [15,17,26] Athelia fibulata M.P. Christ. [15,21] Athelia neuhoffii (Bres.) Donk [17,26] Athelia reticulata (Litsch.) Parmasto [21] Athelia teutoburgensis (Brinkmann) Jülich Athelopsis galzinii (Bres.) Hjortstam [15,26] Athelopsis lunata (Romell ex Bourdot & Galzin) Parmasto [15,26] Athelopsis subinconspicua (Litsch.) Jülich [21] Bjerkandera adusta (Willd.: Fr.) P. Karst. [15,26,27,62] Byssocorticium neomexicanum Gilb. & Budington [15] Byssomerulius ambiguus (Berk.) Gilb. & Budington [17] Byssomerulius armeniacus (Bres.) Gilb. [14,17,26,61] Byssomerulius incarnatus (Schwein.) Gilb. [14,26,61] Byssoporia terrestris (DC.) Larsen & Zak [14,15,26,27,61] Candelabrochaete langloisii (Pat.) Boidin [14,15,17,26,61] Ceraceomyces fouquieriae (Nakasone & Gilb.) Nakasone, C.R. Bergman & Burds. Ceraceomyces serpens (Tode: Fr.) Ginns [14,15,17,26,61] Ceraceomyces sublaevis (Bres.) Jülich [15] Ceraceomyces sulphurinus (P. Karst.) J. Erikss. & Ryvarden [14,17,26,61] Ceraceomyces tessulatus (Cooke) Jülich [14,15,17,26,61] Ceriporia alachuana (Murrill) Hallenb. [26,27]Ceriporia bresadolae (Bourdot & Galzin) Bondartsev & Singer [14,26] Ceriporia excelsa (S. Lundell) Parmasto [15,26,27,61] Ceriporia purpurea (Fr.) Donk [15,17,26,27,46,61] Ceriporia reticulata (Hoffm.) Domański [15,27] Ceriporia spissa (Schwein.: Fr.) Rajchenb. [15,26,27,61]

Ceriporia tarda (Berk.) Ginns [14,15,19,22,26,27,46,61] Ceriporia viridans (Berk. & Broome) Donk [15,27] Ceriporia xvlostromatoides (Berk.) Ryvarden [15,26,27,46,61] Ceriporiopsis aneirina (Sommerf.: Fr.) Domański [NR,61] Ceriporiopsis carnegiae (D.V. Baxter) Gilb. & Ryvarden [15,26,27,30,61] Ceriporiopsis rivulosa (Berk. & M.A. Curtis) Gilb. & Ryvarden [15,26,61] Ceriporiopsis subvermispora (Pilát) Gilb. & Ryvarden [15,26,27,61] Climacocystis borealis (Fr.) Kotl. & Pouzar [15,26,27,61] Climacodon pulcherrimus (Berk. & M.A. Curtis) M.I. Nikol. [14,15,17,26,61] Conohypha terricola (Burt) Jülich [15] Coriolopsis gallica (Fr.) Ryvarden [15,19,26,27,62] Corticium canfieldii (M.J. Larsen & Gilb.) Boidin & Lang. [15,21] Corticium griseoeffusum (M.J. Larsen & Gilb.) Ginns & M.N.L. Lefebvre [15,21]Corticium lombardiae (M.J. Larsen & Gilb.) Boidin & Lang. [15,21] Corticium mississippiense (Lentz) M.J. Larsen [15,21] Corticium radiosum (Fr.) Fr. [16,61] Corticium roseocarneum (Schwein.) Hjortstam [15,26] Crustoderma corneum (Bourdot & Galzin) Nakasone [14,15,26,61] Crustoderma dryinum (Berk. & M.A. Curtis) Parmasto [14,15,17,26,61] Crustoderma testatum (H.S. Jacks. & Dearden) Nakasone [15] Cryptoporus volvatus (Peck) Shear [14,15,26,27,61] Cylindrobasidium corrugum (Burt) Ginns [14,15,26,61] Cylindrobasidium evolvens (Fr.: Fr.) Jülich [21,32,61] Cylindrobasidium laeve (Pers.: Fr.) Chamuris [15] Dacryobolus karstenii (Bres.) Oberw. & Parmasto [14,15,26,61] Dacryobolus sudans (Alb. & Schwein.) Fr. [14,15,17,26,61] Daedalea berkeleyi Sacc. [NR,61] Daedalea flavida Lév. [NR,61] Daedaleopsis confragosa (Bolton: Fr.) J. Schrot. [15,17,26,27]

Datronia scutellata (Schwein.) Gilb. & Ryvarden [15,26,27,61] Datronia stereoides (Fr.: Fr.) Ryvarden [17,26,27,61] Dendrothele acerina (Pers.: Fr.) P.A. Lemke [15,26,61] Dendrothele dryina (Pers.) P.A. Lemke [15,26] Dendrothele griseocana (Bres.) Bourdot & Galzin [15,26,61] Dendrothele incrustans (P.A. Lemke) P.A. Lemke [15,22] Dendrothele mexicana (P.A. Lemke) P.A. Lemke [15] Dendrothele microspora (H.S. Jacks. & P.A. Lemke) P.A. Lemke [15,21] Dichomitus campestris (Quél.) Domański & Orlicz [15,26,27,61] Dichomitus squalens (P. Karst.) D.A. Reid [14,15,26,27,61,62] Diplomitoporus crustulinus (Bres.) Domański [15,17,26,27,61] Diplomitoporus overholtsii (Pilát) Gilb. & Ryvarden [15,26,27,61] Diplomitoporus rimosus (Murrill) Gilb. & Ryvarden [15,22,26,27,61] Erythricium chaparralum Burds. & Gilb. [3,15]Erythricium laetum (P. Karst.) J. Erikss. & Hiortstam [15,21] Fibricium lapponicum J. Erikss. [15] Fibricium rude (P. Karst.) Jülich [14,15,17,26,61] Fibroporia radiculosa (Peck) Parmasto [14,15,26,27,61] Fibroporia vaillantii (DC.: Fr.) Parmasto [15,26,27,61] Fibulomyces mutabilis (Bres.) Jülich [15] Fomes fasciatus (Sw.: Fr.) Cooke [15,26,27,61] Fomes meliae (Underw.) Murrill [21] Fomitopsis cajanderi (P. Karst.) Kotl. & Pouzar [14,15,26,27,61,62] Fomitopsis palustris (Berk. & M.A. Curtis) Gilb. & Ryvarden [15,17,26] Fomitopsis pinicola (Sw.: Fr.) P. Karst. [14,15,26,27,61] Fomitopsis rosea (Alb. & Schwein.: Fr.) P. Karst. [15,17,26,27,61] Funalia trogii (Berk.) Bondartsev & Singer [15,26,28] Ganoderma applanatum (Pers.) Pat. [15,26,27,61] Ganoderma colossus (Fr.) C.F. Baker [NR,61]

Ganoderma lobatum (Schwein.) G.F. Hyphoderma guttuliferum (P. Karst.) Donk Atk. [15,26,27] [15,17,26,61] Ganoderma lucidum (Curtis: Fr.) P. Hyphoderma litschaueri (Burt) J. Erikss. & Karst. [15,19,26,27,61] Å. Strid [15,21] Ganoderma oregonense Murrill Hyphoderma medioburiense (Burt) Donk [NR,61] [15,26] Ganoderma tsugae Murrill Hyphoderma obtusiforme J. Erikss. & Å. [15,26,27,61] Strid [15,21] Gloeophyllum abietinum (Bull.: Fr.) P. Hyphoderma obtusum J. Erikss. [15] Karst. [27] Hyphoderma occidentale (D.P. Rogers) Gloeophyllum carbonarium (Berk. & Boidin & Gilles [15,17,26] M.A. Curtis) Ryvarden [14,15,26,27,61] Hyphoderma pallidum (Bres.) Donk Gloeophyllum mexicanum (Mont.) [14,15,17,22,26] Ryvarden [27,61] Hyphoderma pilosum (Burt) Gilb. & Gloeophyllum odoratum (Wulfen: Fr.) Budington [14,15,17,26,61] Imazeki [14,15,26,27] Hyphoderma populneum (Peck) Donk Gloeophyllum protractum (Fr.) Imazeki [15,26,61] [15,27]Hyphoderma praetermissum (P. Karst.) J. Gloeophyllum sepiarium (Wulfen: Fr.) Erikss. & A. Strid [15] P. Karst. [14,15,22,26,27,62] Hyphoderma puberum (Fr.: Fr. ) Wallr. Gloeophyllum striatum (Sw.: Fr.) [15,26]Murrill [15,27] Hyphoderma roseocremeum (Bres.) Donk Gloeophyllum trabeum (Pers.) Murrill [15,26][22,26,27,61] Hyphoderma setigerum (Fr.: Fr.) Donk Gloeoporus dichrous (Fr.) Bres. [14,15,26] [15,26,27,61] Hyphoderma sibiricum (Parmasto) J. Erikss. Gloeoporus pannocinctus (Romell) J. & Å. Strid [15,21] Hyphoderma tenue (Pat.) Donk [14,17,26] Erikss. [27] Hapalopilus nidulans (Fr.: Fr.) P. Karst. Hyphodermella corrugata (Fr.) J. Erikss. & [14,15,26,27,61] Ryvarden [15] Hapalopilus salmonicolor (Berk. & Hypochniciellum subillaqueatum (Litsch.) M.A. Curtis) Pouzar [14,15,17,26,27] Hjortstam [14,15,17,26,61] Heliocybe sulcata (Berk.) Redhead & Hypochnicium analogum (Bourdot & Ginns [15,19,22,26,30,45,60] Galzin) J. Erikss. [15,17,26,61] Hirshioporus versatilis (Berk.) Imazeki Hypochnicium bombycinum (Sommerf.: Fr.) [22,26] J. Erikss. [14,15,19,26,61] Hydnopolyporus fimbriatus (Fr.) D.A. Hypochnicium eichleri (Bres. ex Sacc.) J. Reid [15,26,28] Erikss. & Ryvarden [15] Hyphoderma amoenum (Burt) Donk Hypochnicium geogenium (Bres.) J. Erikss. [15,17,19,26,61] [15,61] Hyphoderma argillaceum (Bres.) Donk Hypochnicium lundellii (Bourdot) J. Erikss. [14,15,17,26,61] [15,17,26] Hyphoderma budingtonii Lindsey & Hypochnicium prosopidis Burds. Gilb. [15,21,32,61] [15,19,21,26] Hypochnicium punctulatum (Cooke) J. Hyphoderma clavigerum (Bres.) Donk Erikss. [14,15,17,26,61] [15,26,30,61] Hyphoderma cremeoalbum (Höhn. & Hypochnicium sphaerosporum (Höhn. & Litsch.) Jülich [15] Litsch.) J. Erikss. [14,15,17,26,61] Intextomyces contiguus (P. Karst.) Erikss. & Hyphoderma cristulatum (Fr.) Donk [21,26]Ryvarden [NR,61] Hyphoderma definitum (H.S. Jacks.) Ischnoderma resinosum (Schrad.: Fr.) P. Karst. [27] Donk [14,15,17,26] Hyphoderma deserticola Gilb. & Jahnoporus hirtus (Quél.) Nuss [15,26,27] Lindsey [15,21,22,61] Junghuhnia collabens (Fr.) Ryvarden

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Hyphoderma fouquieriae Nakasone &

Gilb. [21,45,61]

Junghuhnia lacera (P. Karst.) Niemelä & Kinnunen [15,27] Junghuhnia luteoalba (P. Karst.) Ryvarden [14,15,26,27,61] Junghuhnia nitida (Pers.: Fr.) Ryvarden [15,27] Laeticorticium roseum (Pers.: Fr.) Donk [15,17,26,61] Laeticorticium simplicibasidium Lindsey & Gilb. [15,21,32,61] Laetiporus conifericola Burds. & Banik [15,17,26,27] Laetiporus gilbertsonii Burds. [17,61] Laetisaria agavei Burds. & Gilb. [3,15] Laricifomes officinalis (Vill.: Fr.) Kotl. & Pouzar [14,15,26,27,61] Lentinus levis (Berk. & M.A. Curtis) Murrill [26,60] Lentinus strigosus (Schwein.) Fr.: Fr. [15,26,45,60] Lentinus tigrinus (Bull.: Fr.) Fr. [15,26,60,62] Lenzites betulina (L.: Fr.) Fr. [15] Leptoporus mollis (Pers.: Fr.) Quél. [14,15,26,27,61] Leptosporomyces fuscostratus (Burt) Hjortstam [14,15,17,26,61] Leptosporomyces galzinii (Bourdot) Jülich [14,15,17,26,61] Leptosporomyces juniperinus Gilb. & Lindsey [21,23,61] Leptosporomyces mundus (H.S. Jacks. & Dearden) Jülich [15,21] Leptosporomyces septentionalis (J. Erikss.) Krieglst. [15,26] Lindtneria baboquivariensis (Gilb.) Gilb. & Ryvarden [19,21,27] Lopharia crassa (Lév.) Boidin [15,17,19,26,45,61] Meruliopsis albostramineus (Torrend) Jülich & Stalpers [15,61] Meruliopsis ambigua (Berk.) Ginns [15,26]Meruliopsis corium (Pers.: Fr.) Ginns [14,15,17,19,26,61] Meruliopsis hirtella (Burt) Ginns [14,15,17,26,61] Meruliopsis taxicola (Pers.: Fr.) Bondartsev [15,17,26,27] Merulius aureus Fr.: Fr. [14,26,61] Mycoacia austro-occidentalis Canf. [15,19,21,45] Mycoacia fuscoatra (Fr.: Fr.) Donk [26] Mycoacia uda (Fr.: Fr.) Donk [15] Mycolindtneria leucobryophila (Henn.) Rauschert [15,21]

Neolentinus lepideus (Fr.: Fr.) Redhead & Ginns [4,14,15,26,60] Neolentinus ponderosus (O.K. Mill.) Redhead & Ginns [14,15,26,60,62] Odonticium laxum (L.W. Mill.) Ryvarden Oligoporus undosus (Peck) Gilb. & Ryvarden [15,28] Osteina obducta (Berk.) Donk [15,17,26,28,61] Pachykytospora tuberculosa (DC.: Fr.) Kotl. & Pouzar [15,26,28] Parmastomyces mollissimus (Maire) Pouzar [14,15,17,26,28,61] Paullicorticium pearsonii (Bourdot) J. Erikss. [14,15,17] Perenniporia amylodextrinoidea Gilb. & Ryvarden [15,28,61] Perenniporia ellipsospora Ryvarden & Gilb. [15] Perenniporia fraxinea (Bull.: Fr.) Ryvarden **INR.611** Perenniporia fraxinophila (Peck) Ryvarden [15,22,26,28,61] Perenniporia medulla-panis (Jacq.: Fr.) Donk [15,19,26,28,61] Perenniporia ohiensis (Berk.) Ryvarden [15,26,28,61] Perenniporia subacida (Peck) Donk [14,15,26,28,61] Perenniporia tenuis var. pulchella (Schwein.) Gilb. & Ryvarden [15,26,28] Perenniporia tenuis var. tenuis (Schwein.) Ryvarden [15,26,28,61] Phaeolus schweinitzii (Fr.: Fr.) Pat. [14,15,26,28,61,62] Phanerochaete affinis (Burt) Parmasto [15,21]Phanerochaete allantospora Burds. & Gilb. [15,19,45] Phanerochaete arizonica Burds. & Gilb. [15,19,45] Phanerochaete avellanea (Bres.) J. Erikss. & Hiortstam [15,26] Phanerochaete burtii (Romell ex Burt) Parmasto [15,17,61] Phanerochaete cacaina (Bourdot & Galzin) Burds. & Gilb. [14,15] Phanerochaete carnosa (Burt) Parmasto [14,15,17,26,61] Phanerochaete chrysorhizon (Torr.) Budington & Gilb. [19,26,30] Phanerochaete filamentosa (Berk. & M.A. Curtis) Burds. [26,61] Phanerochaete fuscomarginata (Burt) Gilb. [15,26,61]

Phanerochaete jose-ferreirae (D.A. Polyporus arcularius (Batsch) Fr. Reid) D.A. Reid [15] [15,19,22,26,28,45,61] Phanerochaete radicata (Henn.) Polyporus badius (Pers.) Schwein. Nakasone, C.R. Bergman & Burds. [15] [15,17,26,28,61,62] Phanerochaete sanguinea (Fr.: Fr.) Polyporus bresadolae Schulzer [NR,61] Pouzar [14,15,17,26,61] Polyporus decurrens Underw. [21] Phanerochaete sordida (P. Karst.) J. Polyporus destructor (Schrad.) Fr. [17] Erikss. & Ryvarden [14,15,17,21,26] Polyporus leptocephalus (Jacq.) Fr. Phanerochaete tuberculata (P. Karst.) [15,26,28,62] Parmasto [15,19,26,30,45] Polyporus melanopus (Pers.) Fr. [15,28] Phanerochaete velutina (DC.: Fr.) Polyporus squamosus (Huds.) Fr. Parmasto [14,15,17,26,61] [15,17,26,28,62] Phanerochaete xerophila Burds. [15] Polyporus tuberaster (Jacq.) Fr. [15,28] Phlebia acerina Peck [15] Polyporus varius (Pers.) Fr. [15,26,28] Phlebia albida H. Post [14,15,17,26,61] Poria byssina Romell [17,61] Phlebia cretacea (Romell ex Bourdot & Poria conferta Overh. [26] Galzin) J. Erikss. & Hjortstam [NR,61] Poria lindbladii (Berk.) Cooke Phlebia deflectens (P. Karst.) Ryvarden [14,15,26,27,61] [15,17,26] Poria oleagina Overh. [17,26] Phlebia firma J. Erikss. & Hjortstam Poria reticulata (Fr.) Cooke [26,61] [15] Poria simanii (Pilát) Gilb. & J. Lowe Phlebia lilascens (Bourdot) J. Erikss. & [26,61] Hjortstam [15] Postia balsamea (Peck) Jülich Phlebia livida (Pers.: Fr.) Bres. [14,15,26,28,61] [14,15,17,26,61] Postia caesia (Schrad.: Fr.) P. Karst. Phlebia ludoviciana (Burt) Nakasone & [15,26,28,61] Postia floriformis (Quél.) Jülich [15,28] Burds. [15,61] Phlebia mellea Overh. [15,61] Postia fragilis (Fr.: Fr.) Jülich Phlebia ochraceofulva (Bourdot & [14,15,26,28,61] Postia guttulata (Peck) Jülich [28] Galzin) Donk [19,21] Phlebia phlebioides (H.S. Jacks. & Postia hibernica (Berk. & Broome) Jülich Dearden) Donk [17,26,61] Phlebia radiata Fr. [15,17,26,61] Postia leucomallella (Murrill) Jülich [15,21] Phlebia rufa (Pers.: Fr.) M.P. Christ. Postia perdelicata (Murrill) M.J. Larsen & [17,26,61] Lombard [15,26,28] Postia placenta (Fr.) M.J. Larsen & Phlebia subochracea (Bres.) J. Erikss. & Ryvarden [15] Lombard [15,17,21,26,28] Phlebia subserialis (Bourdot & Galzin) Postia rancida (Bres.) M.J. Larsen & Donk [14,15,17,26,61] Lombard [15,26] Phlebiella pseudotsugae (Burt) K.H. Postia sericeomollis (Romell) Jülich [28] Larss. & Hjortstam [15] Postia stiptica (Pers.: Fr.) Jülich [15,28] Phlebiopsis gigantea (Fr.: Fr.) Jülich Postia tephroleuca (Fr.: Fr.) Jülich [14,15,17,26,61] [14,15,26,28,62] Piloderma bicolor (Peck) Jülich Pycnoporellus alboluteus (Ellis & Everh.) [14,17,26] Kotl. & Pouzar [14,15,17,26,28,62] Piloderma byssinum (P. Karst.) Jülich Pycnoporus cinnabarinus (Jacq.) Fr. [14,15,26,28,45,61,62] [14,15,17,26,61] Piloderma fallax (Lib.) Stalpers [15] Pycnoporus sanguineus (L.: Fr.) Murrill [15,17,26,28,61] Piloderma reticulatum (Litsch.) Jülich [15] Pyrofomes demidoffii (Lév.) Kotl. & Pouzar Piloderma sphaerosporum Jülich [21] [15,22,26,28] Polyporus admirabilis Peck Radulodon aneirinus (Sommerf.) Spirin [15,21,28,61] [15,26,27] Polyporus alveolaris (DC.: Fr.) Radulodon casearius (Morgan) Ryvarden

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Bondartsev & Singer [15,17,26,28]

Radulomyces confluens (Fr.: Fr.) M.P. Christ. [15,17,26,61] Resinicium bicolor (Alb. & Schwein.: Fr.) Parmasto [14,15,17,26,61] Resinicium chiricahuaense Gilb. & Budington [14,15,26,61] Resinicium furfuraceum (Bres.) Parmasto [14,15,17,26,61] Rigidoporus crocatus (Pat.) Ryvarden [15,17,26,28,61] Rigidoporus sanguinolentus (Alb. & Schwein.: Fr.) Donk [14,15,17,26,28,61] Rigidoporus ulmarius (Sowerby: Fr.) Imazeki [15,17,26,28,61] Rigidoporus undatus (Pers.: Fr.) Donk [15] Rigidoporus vinctus (Berk.) Ryvarden [21,61] Scopuloides hydnoides (Cooke & Massee) Hjortstam & Ryvarden [26] Scopuloides rimosa (Cooke) Jülich [15] Sistotrema brinkmannii (Bres.) J. Erikss. [14,15,17,26,61] Sistotrema confluens Pers.: Fr. [17,26,28] Sistotrema coroniferum (Höhn. & Litsch.) Donk [15,26,61] [15,28]Sistotrema hirschii (Donk) Donk [15,26] Sistotrema muscicola (Pers.) S. Lundell [15,26]Sistotrema raduloides (P. Karst.) Donk [15,26]Sistotrema subtrigonospermum D.P. Rogers [15,17,26,61] Sistotremastrum niveocremeum (Höhn. & Litsch.) J. Erikss. [15] Sistotremastrum suecicum Litsch. ex J. Erikss. [15,21] Skeletocutis alutacea (J. Lowe) Jean Keller [NR,61] Skeletocutis amorpha (Fr.: Fr.) Kotl. & [15,26] Pouzar [14,15,17,26,28,61] Skeletocutis lenis (P. Karst.) Niemelä [15,26,27,61] Skeletocutis nivea (Jungh.) Jean Keller [15,28][15,26,28] Skeletocutis stellae (Pilát) Jean Keller [15,17,26,28] Skeletocutis subincarnata (Peck) Jean Keller [14,15,17,19,26,28,61] Skeletocutis vulgaris (Fr.) Niemelä & Y.C. Dai [NR,61] Sparassis crispa (Wulfen: Fr.) Fr.

[14,15,17,26,60,62]

Sphaerobasidium minutum (J. Erikss.) Oberw. [14,15,17,26] Spongipellis unicolor (Schwein.: Fr.) Murrill [15,26,28,61,62] Steccherinum adustum (Schwein.) Z.S. Bi & G.Y. Zheng [NR,61] Steccherinum ciliolatum (Berk. & M.A. Curtis) Gilb. & Budington [15,17,26,61] Steccherinum fimbriatum (Pers.: Fr.) J. Erikss. [14,15,17,26,61] Steccherinum laeticolor (Berk. & M.A. Curtis) Banker [15, 17, 26, 61] Steccherinum ochraceum (Pers.: Fr.) Gray [15,17,26,61] Steccherinum oreophilum Lindsey & Gilb. [15,21,31,61] Steccherinum robustius (J. Erikss. & S. Lundell) J. Erikss. [NR,61] Subulicystidium longisporum (Pat.) Parmasto [15,17,26,61] Theleporus ajovalliensis Gilb. & M. Blackw. [16,28,61] Tomentellopsis pallidoaurantiaca (Gilb. & Budington) K.H. Larss. ex Ginns & M.N.L. Lefebvre [25] Tomentellopsis pusilla Hjortstam [15] Trametes cervina (Schwein.: Fr.) Bres. Trametes hirsuta (Wulfen: Fr.) Pilát [15,26,28,61] Trametes ochracea (Pers.) Gilb. & Ryvarden [15,28] Trametes suaveolens (L.) Fr. [17,26,28] Trametes versicolor (L.: Fr.) Lloyd [15,26,28,62] Trechispora candidissima (Schwein.) Bondartsev & Singer [26] Trechispora cohaerens (Schwein.) Jülich & Stalpers [15,26] Trechispora farinacea (Pers.: Fr.) Liberta [14,15,17,23,26,61] Trechispora fastidiosa (Pers.: Fr.) Liberta Trechispora microspora (P. Karst.) Liberta [14,15,26,61] Trechispora mollusca (Pers.: Fr.) Liberta Trechispora praefocata (Bourdot & Galzin) Liberta [14,15,17,26] Trechispora sphaerocystis Burds. & Gilb. *Trechispora variseptata* Burds. & Gilb. [3] Trichaptum abietinum (Dicks.: Fr.) Ryvarden [14,15,26,28,61,62] Trichaptum biforme (Fr.) Ryvarden [26,28,61]

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Boidin [15]

Aleurodiscus fennicus Laurila [15]

P.A. Lemke [15,17,22,66]

Aleurodiscus lividocaeruleus (P. Karst.)

Aleurodiscus mesaverdensis (Lindsey)

Trichaptum byssogenum (Jungh.) Amylosporus campbellii (Berk.) Ryvarden Ryvarden [28] [26,27,61] Trichaptum laricinum (P. Karst.) Amylostereum chailletii (Pers.: Fr.) Boidin Ryvarden [28] [15,17,26] Trichaptum sector (Ehrenb.: Fr.) Asterostroma cervicolor (Berk. & M.A. Kreisel [15,26,61] Curtis) Massee [15,17,26,61] Trichaptum subchartaceum (Murrill) Asterostroma muscicola (Berk. & M.A. Ryvarden [15,17,26,28,61] Curtis) Massee [15,26,45,61] Tubulicrinis calothrix (Pat.) Donk Auriscalpium vulgare Gray [15,60,61,62] [15,17,26,61] Chaetoderma luna (Romell ex D.P. Rogers Tubulicrinis chaetophora (Höhn.) Donk & H.S. Jacks.) Parmasto [14,15,17,26] [14,15,17,26,61] Clavicorona divaricata Leathers & A.H. Tubulicrinis gracillimus (Ellis & Everh. Sm. [NR,65] ex D.P. Rogers & H.S. Jacks.) G. Cunn. Clavicorona pyxidata (Pers.: Fr.) Doty [14,15,17,26,61] [15,21,60,62] Tubulicrinis hamatus (H.S. Jacks.) Cryptochaete rufa (Fr.) P. Karst. [NR,61] Donk [15,26] Dichostereum granulosum (Pers.: Fr.) Tubulicrinis medius (Bourdot & Galzin) Boidin & Lang. [14,15,17,26] Oberw. [15] Dichostereum pallescens (Schwein.) Boidin Tubulicrinis subulatus (Bourdot & & Lang. [15,26] Galzin) Donk [14,15,17,26,61] Echinodontium tinctorium (Ellis & Everh.) Tyromyces destructor (Schrad.) Ellis & Everh. [15,26,27,60] Bondartsev & Singer [26] Gloeocystidiellum clavuligerum (Höhn. & Tyromyces immitis (Peck) Bondartsev Litsch.) Nakasone [NR,61] Gloeocystidiellum convolvens (P. Karst.) Tyromyces lacteus (Fr.) Murrill [NR,61] Donk [15,17,26,61] Tyromyces leucospongia (Cooke & Gloeocystidiellum karstenii (Bourdot & Harkn.) Bondartsev & Singer [17,26,28] Galzin) Donk [15,26,61,66] Tyromyces undosus (Peck) Murrill Gloeocystidiellum lactescens (Berk.) Boidin [14,26] [15,17,26,61] Veluticeps abietina (Pers.: Fr.) Gloeocystidiellum leucoxanthum (Bres.) Hjortstam & Tellería [26] Boidin [15,26,66] Veluticeps berkeleyi Cooke Gloeocystidiellum luridum (Bres.) Boidin [14,15,26,61] [15,26,66] Veluticeps fimbriata (Ellis & Everh.) Gloeocystidiellum porosum (Berk. & M.A. Nakasone [NR,61] Curtis) Donk [15,17,26,61] Veluticeps pimeriensis (Gilb.) Gloeocystidiellum sulfureoisabellinum Hjortstam & Tellería [14,15,26,61] (Litsch.) Boidin [NR,61] Gloeodontia discolor (Berk. & M.A. Curtis) Wolfiporia dilatohypha Ryvarden & Gilb. [15] Boidin [15,26,61] Wolfiporia sulphurea (Burt) Ginns Gloiodon strigosus (Sw.: Fr.) P. Karst. [15,26][15,19,26] Xenasmatella vaga (Fr.) Stalpers Hericium coralloides (Scop.: Fr.) Pers. [14,15,17,26,61] [15,21,26,60,62] Hericium erinaceus (Bull.: Fr.) Pers. [15,26,60,62] Russulales Heterobasidion annosum (Fr.: Fr.) Bref. Aleurodiscus bertii Lloyd [15,17,61] [14,15,26,27,61] Aleurodiscus cerussatus (Bres.) Höhn. Lactarius alnicola A.H. Sm. [NR,62] & Litsch. [15] Lactarius aspideoides Burl. [NR,67] Aleurodiscus diffissus (Sacc.) Burt Lactarius barrowsii Hesler & A.H. Sm.

[NR,62]

[NR,67]

Lactarius chrysorrheus Fr. [NR,60]

Lactarius controversus (Pers.: Fr.) Fr.

[15,17,61]

Peniophora pithya (Pers.) J. Erikss. Lactarius deliciosus (L.: Fr.) Gray INR.60.621 [15,17,61] Lactarius indigo (Schwein.) Fr. Peniophora polygonia (Pers.: Fr.) Bourdot [NR,60,62] & Galzin [15,17] Lactarius montanus var. montanus Peniophora pseudopini Weresub & I.A.S. (Hesler & A.H. Sm.) Montoya & Band.-Gibson [15] Peniophora quercina (Pers.: Fr.) Cooke [15] Muñoz [29] Lactarius mucidus Burl. [NR,62] Peniophora rufa (Pers.: Fr.) Boidin [15,17] Lactarius pubescens var. pubescens Peniophora subsulphurea (P. Karst.) Höhn. (Fr.) Fr. [29] & Litsch. [NR,61] Lactarius repraesentaneus Britzelm. Peniophora tamaricicola Boidin & [29] Malençon [18,19,30,45] Peniophora versiformis (Berk. & M.A. Lactarius resimus var. resimus (Fr.: Fr.) Fr. [29] Curtis) Bourdot & Galzin [15,17,26] Lactarius rubrilacteus Hesler & A.H. Peniophora violaceolivida (Sommerf.) Massee [15,17] Sm. [NR,62] Lactarius rufulus Peck [NR,62] Russula abietina Peck [NR.68] Russula aeruginea Fr. [NR,68] Lactarius subdulcis (Bull.: Fr.) Gray Russula aeruginosa Pers. [NR,62] [NR,60] Lactarius subvillosus Hesler & A.H. Russula albonigra (Krombh.) Fr. [NR,62] Sm. [29] Russula alutacea (Fr.) Fr. [NR,60,62,63,68] Lactarius torminosus (Schaeff.: Fr.) Russula amethystina Quél. [NR,63,68] Gray [NR,60] Russula amoenicolor Romagn. [NR,68] Lactarius trivialis (Fr.: Fr.) Fr. [4] Russula atroviolacea Burl. [8] Lactarius uvidus (Fr.) Fr. [NR,62] Russula brevipes Peck [NR,62,68] Russula cinereovinosa Fatto [8,9,63,68] Lactarius vinaceorufescens A.H. Sm. Russula claroflava Grove [NR,62] [NR.62] Lactarius volemus (Fr.) Fr. [NR,60] Russula cochisei Fatto [8,63,68] Russula compacta Frost [NR,60] Lactarius xanthogalactus Peck [NR,62] Lactarius zonarius (Bull.) Fr. [NR,67] Russula decolorans (Fr.) Fr. [NR,62] Lentinellus cochleatus (Pers.: Fr.) P. Russula delica Fr. [4,60,62] Karst. [15,26,60] Russula densifolia Secr. ex Gillet Lentinellus micheneri (Berk. & M.A. [NR,60,62,68] Russula emetica (Schaeff.: Fr.) Pers. Curtis) Pegler [15,60,62] Lentinellus ursinus (Fr.: Fr.) Kühner [NR,60] Russula foetens (Pers.: Fr.) Pers. [NR,60] [15,26,60,62] Martellia ellipsospora (Zeller) Singer & Russula fragrantissima Romagn. [NR,62] A.H. Sm. [11,13,52] Russula grata Britzelm. [4] Mucronella calva (Alb. & Schwein.) Fr. Russula heterophylla (Fr.: Fr.) Fr. [14,15,17,26,61] [NR,62,68] Peniophora albobadia (Schwein.: Fr.) Russula integra (L.: Fr.) Fr. [NR,62] Boidin [15,19,26,45] Russula lutea (Huds.: Fr.) Fr. Peniophora cinerea (Pers.: Fr.) Cooke [NR,60,62,63,68] Russula macropoda Singer [NR,68] [15] Peniophora firma Burt [NR,61] Russula maculata Quél. & Roze [NR,67] Peniophora flavidoalba Cooke [NR,61] Russula nigricans (Bull.) Fr. [4,62] Peniophora gilbertsonii Boidin [15] Russula nobilis Velen. [NR,67] Peniophora laurentii S. Lundell Russula ornaticeps Burl. [NR,68] [17,26,61] Russula palustris Peck [NR,60] Peniophora ludoviciana Burt [17] Russula pectinatoides Peck [NR,68] Peniophora nuda (Fr.: Fr.) Bres. Russula rhodopoda Zvára [NR,63,68] [15,17,19,61] Russula sanguinaria (Schumach.) Rauschert Peniophora odorata (P. Karst.) Burt [NR,62] [NR,61] Russula subfoetens Wm.G. Sm. [NR,68] Peniophora perexigua H.S. Jacks. Russula veternosa Fr. [4]

Russula virescens (Schaeff.) Fr. [NR,67]

Svrček [14,15,26]

Russula xerampelina (Schaeff.) Fr. Pseudotomentella tristis (P. Karst.) M.J. [NR.60.63,68] Larsen [14.15.26] Russula zelleri Burl. [NR,68] Sarcodon calvatus (K.A. Harrison) K.A. Scytinostroma arachnoideum (Peck) Harrison [NR,62] Gilb. [15,26] Sarcodon imbricatus (L.: Fr.) P. Karst. Scytinostroma galactinum (Fr.) Donk [NR,60,62] [14,15,17,26] Thelephora caryophyllea (Schaeff.) Pers.: Scytinostroma ochroleucum (Bres. & Fr. [15] Torrend) Donk [15,26] Thelephora cuticularis Berk. [15] Scytinostroma protrusum (Burt) Thelephora regularis Schwein. [15] Nakasone [15,17,26] Thelephora terrestris Ehrh.: Fr. Stereum gausapatum (Fr.) Fr. [26] [14,15,26,62] Stereum hirsutum (Willd.) Pers.: Fr. Tomentella atrocyanea Wakef. [15] [15,26,62] Tomentella badia (Link) Stalpers [14,15,26] Stereum ochraceoflavum (Schwein.) Fr. Tomentella botryoides (Schwein.) Bourdot & Galzin [14,15,26] [15,26]Stereum ostrea (Blume & T. Nees) Fr. Tomentella bryophila (Pers.) M.J. Larsen [26] [15,26] Stereum sanguinolentum (Alb. & Tomentella cinerascens (P. Karst.) Höhn. & Schwein.) Fr. [15,26] Litsch. [15,26] Vararia athabascensis Gilb. [15,26] Tomentella coerulea (Bres.) Höhn. & Litsch. Vararia fibra A.L. Welden [15,21,23] [19,26]Vararia investiens (Schwein.) P. Karst. Tomentella crinalis (Fr.) M.J. Larsen [15] [15,26,61] Vararia racemosa (Burt) D.P. Rogers & Tomentella ellisii (Sacc.) Jülich & Stalpers H.S. Jacks. [15,17,26] Vararia tropica A.L. Welden [19,21] Tomentella ferruginea (Pers.: Fr.) Pat. Vesiculomyces citrinus (Pers.) E. [15,26]Tomentella fuscocinerea (Pers.: Fr.) Donk Hagstr. [14,15,17,26,61,66] Wrightoporia lenta (Overh. & J. Lowe) [15,26,61] Pouzar [15,26] Tomentella italica (Sacc.) M.J. Larsen [15] Tomentella lapida (Pers.) Stalpers [14,15,26] Thelephorales Tomentella lateritia Pat. [14,15,26,61] Amaurodon mustialaensis (P. Karst.) Tomentella lilacinogrisea Wakef. [15,26] Kõljalg & K.H. Larss. [15,26] Tomentella microspora (P. Karst.) Höhn. & Amaurodon viridis (Alb. & Schwein.: Litsch. [26] Fr.) J. Schröt. [15] Tomentella pilosa (Burt) Bourdot & Galzin Hydnellum concrescens (Pers.) Banker [14,15,26] [NR.60] Tomentella punicea (Alb. & Schwein.: Fr.) Hydnellum conigenum (Peck) Banker J. Schröt. [15,26] [NR,62] Tomentella sparsa (Burt) Bourdot & Galzin Hydnellum humidum (Banker) Banker [26] [NR,60] Tomentella stuposa (Link) Stalpers [15] Hydnellum regium K.A. Harrison Tomentella terrestris (Berk. & Broome) [NR,62]M.J. Larsen [15] Hydnellum suaveolens (Scop.: Fr.) P. Tomentella umbrinella (Bourdot & Galzin) Karst. [NR,60] M.P. Christ. [14,26] Phlyctibasidium polyporoideum (Berk. Tomentella umbrinospora M.J. Larsen [15] & M.A. Curtis) Jülich [15] Tomentella viridescens (Bres. & Torrend) Polyozellus multiplex (Underw.) Murrill Bourdot & Galzin [15] [NR,65] Tomentella viridis (Berk.) G. Cunn. Pseudotomentella atrofusca M.J. Larsen [14,26,61] Tomentellastrum caesiocinereum Svrček Pseudotomentella mucidula (P. Karst.)

[15]

Tomentellina fibrosa (Berk. & M.A. Curtis) M.J. Larsen [14,15,26,61]

#### **Tremellales**

Aporpium caryae (Schwein.) Teixeira & D.P. Rogers [26]

Basidiodendron caesiocinereum (Höhn.

& Litsch.) Luck-Allen [15,26]

Basidiodendron cinereum (Bres.) Luck-

Allen [14,15,26]

Basidiodendron eyrei (Wakef.) Luck-

Allen [15,26]

Basidiodendron fulvum (Massee) Ginns

[15]

Basidiodendron grandinioides (Bourdot

& Galzin) Luck-Allen [26]

Ductifera sucina (A. Møller) K. Wells [NR,61]

[INK,OI]

Eichleriella schenkii Burt [15]

Eichleriella spinulosa (Berk. & M.A.

Curtis) Burt [NR,61]

Exidia glandulosa (Bull.) Fr.: Fr.

[15,21,26,61]

Exidia nucleata (Schwein.) Burt [26]

Exidia recisa (Ditmar) Fr. [NR,61]

Exidia saccharina Fr.: Fr. [15,26]

Exidiopsis leucophaea (Bres.) K. Wells

[19,26]

Exidiopsis molybdea (McGuire) Ervin

[15,26]

Exidiopsis opalea (Bourdot & Galzin)

D.A. Reid [26]

Microsebacina fugacissima (Bourdot &

Galzin) P. Roberts [15,26]

Myxarium atratum (Peck) Ginns &

M.N.L. Lefebvre [15]

Pseudohydnum gelatinosum (Scop.: Fr.)

P. Karst. [15,26,62]

Sebacina calcea (Pers.: Fr.) Bres.

[15,19,22,26,61]

Sebacina epigaea (Berk. & Broome)

Bourdot & Galzin [15,21]

Stypella glaira (Lloyd) P. Roberts [15]

Stypella subhyalina (A. Pearson) P.

Roberts [15,21]

Tremella foliacea Pers.: Fr. [15,26,61]

Tremella mesenterica Retz.: Fr. [15,26]

Tremella simplex H.S. Jacks. & G.W.

Martin [19,26]

Tremella subanomala Coker [15]

Tremella tubercularia Berk. [15,26]

#### **Tulasnellales**

Tulasnella allantospora Wakef. & A. Pearson [14,15,26]

Tulasnella violea (Quél.) Bourdot & Galzin [14,15,26]

#### Incertae Sedis

Colacogloea peniophorae (Bourdot & Galzin) Oberw., R. Bauer & Bandoni [19,26]

Helicobasidium candidum G.W. Martin [15,26]

Helicobasidium corticioides Bandoni [15] Helicogloea contorta G.E. Baker [15]

Helicogloea farinacea (Höhn.) D.P. Rogers [15,26]

Helicogloea lagerheimii Pat. [15,26]

Phymatotrichopsis omnivora (Duggar)

Hennebert [15,21,45]

Platygloea mycophila Burds. & Gilb. [19]

#### ZYGOMYCOTA

## Endogonales

Endogone lactiflua Berk. [55,64]

2006

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